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CONTENTS

BREEDING BLACKBIRD POPULATION.....	35-42
BREEDING BIRDS — SIOUX CITY PRAIRIE.....	42-45
SPRING CONVENTION	45-49
BIRDING AREAS — WARREN COUNTY	50-52
BIRD EGG COLLECTIONS IN IOWA	52-55
RECORDS COMMITTEE REPORT — 1984	56-58
FIELD REPORTS.....	59-71
GENERAL NOTES.....	72-75
BOOK REVIEWS.....	75-76

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Breeding Blackbird Populations in Iowa

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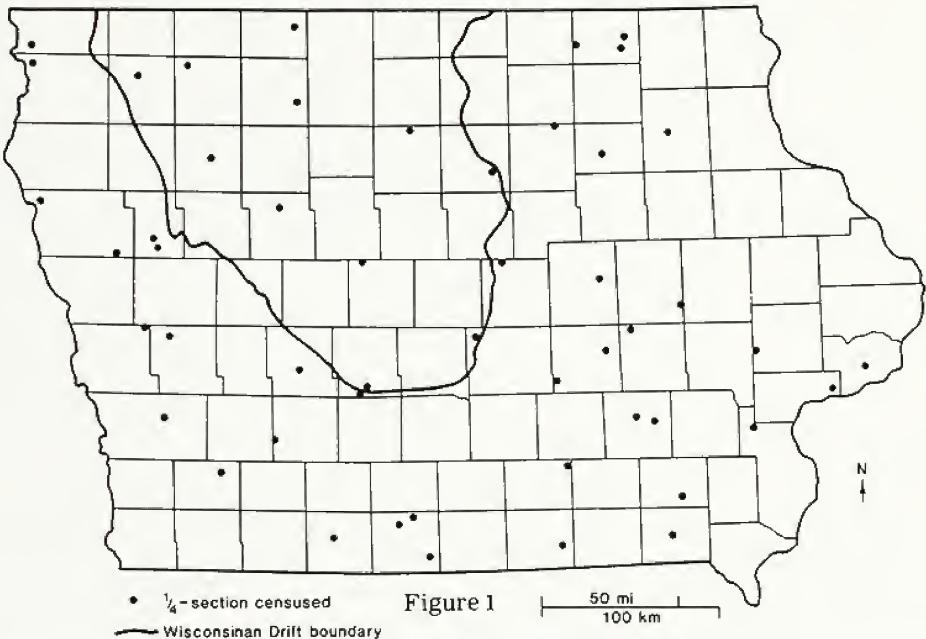
INTRODUCTION

Iowa had the 4th highest density of breeding Red-winged Blackbirds (*Agelaius phoeniceus*) of any state in the U.S. according to the annual roadside index of the North American Breeding Bird Survey (NABBS) conducted during the years 1966-80 (Johnson et al 1982). Indices of breeding Red-winged Blackbirds were somewhat higher (8.4%) in Iowa than in North Dakota during this 15-year period. The mean number of Red-winged Blackbirds recorded on 24.5-mi (39-km) routes for the period was 162.8 in Iowa and 150.2 in North Dakota. Because Red-winged Blackbirds prefer marshes over uplands for nesting (Robertson 1972) and Iowa has few marshes compared to North Dakota (Shaw and Fredine 1971), one might be skeptical that Iowa populations are as dense as NABBS data indicate. The usefulness and the shortcomings of data obtained in NABBS survey in Iowa have been pointed out by Dinsmore et al (1984). Censuses of randomly sampled areas, such as conducted by Stewart and Kantrud (1972) in North Dakota, should yield more accurate information on existing breeding populations in Iowa, than roadside indices. Thus, I censused random quarter sections (160 acres or 2.49 km²) in Iowa in 1983-1984. Breeding populations of two other species of blackbirds, the Common Grackle (*Quiscalus quiscula*) and the Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*), were also censused as these species and the Red-winged Blackbird are responsible for most of the damage to ripening agricultural crops in Iowa (Besser and Brady 1982).

A secondary objective of the study was to determine the recruitment of young males into Red-winged Blackbird breeding populations. While censusing breeding blackbird populations in North Dakota (Besser 1985), I had been unable to find the number of immature Red-winged Blackbird males in censused areas indicated by the survival rates for this species reported by Fankhauser (1967) and Stewart (1978).

METHODS

Fifty randomly selected quarter sections were chosen for censusing in Iowa (Fig. 1). The 26 in southern Iowa (south of 41° latitude) were censused 18-26 May 1983, and the remaining 24 in northern Iowa were censused 19-25 May 1984. All breeding male Red-winged and Yellow-headed Blackbirds and pairs of Common Grackles holding breeding territories were counted in each 160-acre area censused. This census was similar to that described by Stewart and Kantrud (1972). Twin 440 x 880-yard (402 x 804m) strips were censused by walking the midpoint of the strip (220 yards from each edge of the strip). If any land area on the strip was not visible with binoculars because of rolling terrain or trees or shrubs, the transect was interrupted and this area visited to ensure a complete count. Marking the point of departure from the transect enabled the observer to return to that point. In Iowa, however, only a few of the 160-acre areas could be censused using the twin 440 x 880-yard census strips. Hills and wooded areas often necessitated running a 220 yard compass-line strip around 3 sides of the perimeter of the 160-acre area (100 acres censused) and then censusing the remaining 60 acres with additional twin 220 x 660 yard census strips. Each male seen was closely observed with binoculars to determine whether it was an immature (SY) or adult (ASY) bird. In addition, all breeding (and migrant) species and numbers sighted were recorded, but no departures from the center of the strip were made to obtain a complete census of these other species.



RESULTS AND DISCUSSION

Breeding Blackbird Populations

A total of 369 breeding male Red-winged Blackbirds were found on the 50 160-acre areas censused in Iowa, or 29.52 adult males (\pm SE 4.01) per mi² (Table 1). The statewide estimate was 1.7 million breeding males. Surprisingly, the density of breeding Red-winged Blackbirds in the recently glaciated Cary and Tazewell Drifts of the Wisconsin Ice Age (Prior 1976) were much lower than in the remainder of Iowa. Densities of only 9.5 (\pm SE 4.5) males/mi² were found in the 11 quarter-sections sampled in the Wisconsinian Drifts, compared to 25.2 (\pm SE 4.6) male/mi² in the remainder of Iowa, or only 37% as many ($P = 0.0002$, t-test). A total of 110 breeding pairs of Common Grackles were found on the areas censused, or 8.80 (\pm SE 1.76) per mi². The statewide estimate was 493,000 breeding pairs. Densities of breeding Common Grackles in the recently glaciated area and the remainder of Iowa were similar (10.2 \pm SE 4.8) vs 8.4 (\pm SE 1.8)/mi². Only 8 Yellow-headed Blackbird males were encountered, all on one area sampled in Calhoun County.

A mean density of 38.96 (\pm SE 7.22) breeding pairs/mi² of the three species of blackbirds responsible for most crop damage was found in Iowa in 1983-84 (Table 1). The small number of breeding blackbirds found in feeding habitats (3 Red-

Table 1. Estimates of breeding blackbird numbers in Iowa, 1983-84.

Species	Density/mi ² (\pm SE)	Estimated state total a/ (\pm SE)
Red-winged Blackbird b/	29.52 (\pm 4.01)	1,652,706 (\pm 224,664)
Common Grackle c/	8.80 (\pm 1.76)	492,677 (\pm 98,710)
Yellow-headed Blackbird b/	0.64 (\pm 0.64)	35,831 (\pm 35,831)
TOTAL	38.96 (\pm 3.83)	2,181,214 (\pm 214,400)

a/ 55,986 mi² in Iowa (Prior 1976). b/ ASY males. c/ Pairs.

winged Blackbirds, 8 Common Grackles and 0 Yellow-headed Blackbirds) indicated that few breeders were missed and that the census of breeding blackbirds was nearly complete. The timing of the census period (18-26 May) appeared to be optimal, as no young of any of the 3 species were observed and most breeders were adhering closely to territories.

Blackbirds Densities in Various Habitats

In May of 1983 and 1984, wetlands made up 4.8% of the 50 160-acre sample areas (8,000 acres) but contained 41.7% of the 3 species of breeding Icterines censused (Table 2). Uplands made up 95.2% of the sampled areas and contained 40.2% of the 3 species of breeding blackbirds; cropland with breeding habitat made up 12.3% of the area and contained 15.2% of the blackbirds; and bare tilled and newly seeded cropland made up 55.1% of the area sampled and 2.9% of the breeding blackbirds were observed (while feeding) there. Iowa has less wetland habitat of much poorer quality (mostly stream courses) than North Dakota (4.8% vs 7.8%), but had much higher Red-winged Blackbird breeding densities in wetland areas (43.9 vs 25.8/100 acres) (Besser 1985). Surprisingly, Iowa and North Dakota had similar numbers of breeding Common Grackles in most habitats. The lack of suitable marshes for Yellow-headed Blackbird breeding in Iowa (0.1 vs 2.1/100 acres for North Dakota and 2.1 vs 25.3/100 acres of wetlands) was apparent. Breeding densities of the 3 species of crop-damaging blackbirds were 6.1/100 acres in all habitats in Iowa and 6.7/100 acres in North Dakota.

Population Recruitment of Red-winged Blackbirds

In the 50 160-acre areas censused in Iowa, only 71 immature (SY) males were observed (Table 3). Only 5 of the 71 were observed in a feeding habitat. SY male Red-winged Blackbirds were loosely holding territories most commonly in wetlands (21) and haylands (17). Only 1 of the 71 SY males holding territories was observed to have attracted a female. The statewide number of SY male Red-winged Blackbirds is estimated at 320,000 or 16.1% of the total male population. Only 1 SY male was observed for every 5.2 adult (ASY) males observed. This indicates that either the number of young males recruited into breeding Red-winged Blackbirds populations has been overestimated or that the reported survival rate of adult males has been underestimated by Fankhauser (1967) and Stewart (1978).

Relationship of Census and Breeding Bird Survey Index Data for Red-winged Blackbirds

The ratio of Red-winged Blackbirds numbers reported on 25-mi NABBS index routes in Iowa (155.5) in 1980 (Johnson et al 1982) and the number of breeding males found per mi² in this census (29.5) was 5.27 (Table 4). This is almost precisely the ratio (5.25) found in 1982 for the Agassiz Lake Plain region of North Dakota (Besser 1985) the physiographic region of that state that is most similar to Iowa.

Other Species

A list of other breeding (and migrant) species and numbers observed while making the blackbird census is given in Table 5. Although no special effort was made to visit non-blackbird habitats, the list could serve as a baseline index if these areas are re-censused at a future time. The location of quarter sections censused is available from the author, upon request.

SUMMARY

Red-winged and Yellow-headed Blackbirds and Common Grackles were censused in 1983-84 in 50 quarter sections (160-acres) in Iowa. The density of breeding male Red-winged Blackbirds in Iowa was estimated at 29.5 (+ SE 4.1)

Table 2. Densities of 3 species of blackbirds in 4 wetland and 13 upland habitats in Iowa, 1983-84.

Habitat	Acres	(%)	No.	Per 100A
Wetlands				
Lake edges and lakes	80	(1.0)	3	3.8
Sloughs and marshes	47	(0.6)	41	87.2
Steam courses	222	(2.8)	91	41.0
Ponds	34	(0.4)	33	97.1
Total	383	(4.8)	168	43.9
Uplands				
Non-croplands				
Roadsides	165	(2.1)	37	22.4
Fence rows	47	(0.6)	7	14.9
Farmsteads and wind breaks	205	(2.6)	20	9.8
Railroad right-of-ways	27	(0.3)	10	37.0
Ungrazed pastures	266	(3.3)	26	9.8
Grazed pastures	919	(11.5)	27	2.9
Woodlands and brushlands	447	(5.6)	0	0.0
Urban areas	151	(1.9)	0	0.0
Croplands				
Breeding habitats				
>12" stubbles	412	(5.2)	5	1.2
Alfalfa and other hay lands	448	(5.6)	61	13.6
Flooded stubbles	120	(1.5)	5	4.2
Feeding habitats				
Bare tilled, <12" stubbles	1,173	(14.7)	2	0.2
Newly seeded	3,237	(40.5)	1	0.03
Total	7,617	(95.2)	201	2.6
Uplands				
Wetlands and Uplands - Grand Total				
8,000	(100.0)	369	4.6	
Upland Non-croplands	Total 2,227	(27.8)	127	5.7
Croplands	Total 5,390	(67.4)	74	1.4
Breeding habitats	Sub-total 980	(12.3)	71	8.8
Feeding habitats	Sub-total 4,410	(55.1)	3	0.1
Uplands	Total 3,207	(40.1)	198	6.2
(excluding feeding habitats)				

per mi², or about 1.7 million for the state. Density of breeding Common Grackles was estimated at 8.8 (+ SE 1.8) pairs per mi², or about 500,000 for the state. Density of breeding Yellow-headed Blackbirds was estimated at only 0.64 (+ 0.64) per mi² or 36,000 for the state. Breeding density of the 3 species of blackbirds, responsible for most crop damage in the U. S., was estimated at 39.0 (+ SE 3.8) per mi², or 2.2 million for the state.

The density of immature male Red-winged Blackbirds in Iowa was estimated at 5.7 (+ SE 1.2) per mi² or 16.1% of all male Red-winged Blackbirds censused. These data indicate that either the recruitment of young male Red-winged Blackbirds into breeding populations is lower or adult male survival is higher than previously estimated, or both.

Table 2 (cont.)

Yellow-headed Blackbird		Common Grackle		Total Blackbirds	
No.	Per 100A	No.	Per 100A	No.	Per 100A
0	0.0	1	1.3	4	5.0
8	17.0	1	2.1	50	106.4
0	0.0	16	7.2	107	48.2
0	0.0	9	26.5	42	123.5
8	2.1	27	7.0	203	53.0
<hr/>					
0	0.0	13	7.8	50	30.3
0	0.0	2	4.3	9	19.1
0	0.0	32	15.6	52	25.4
0	0.0	0	0.0	10	37.0
0	0.0	3	1.1	29	10.9
0	0.0	11	1.2	38	4.1
0	0.0	0	0.0	0	0.0
0	0.0	8	5.3	0	5.3
<hr/>					
0	0	0	0.0	5	1.2
0	0	3	0.7	64	14.3
0	0	0	0.0	5	6.0
<hr/>					
0	0.0	3	0.3	5	0.4
0	0.0	8	0.2	9	0.3
0	0.0	83	1.1	284	3.7
<hr/>					
8	0.1	110	1.4	487	6.1
<hr/>					
0	0.0	69	3.1	196	8.8
0	0.0	14	0.3	88	1.6
0	0.0	3	0.3	74	7.5
0	0.0	11	0.2	14	0.3
0	0.0	72	2.2	270	8.4

The ratio of Red-winged Blackbirds on 25-mile North American Breeding Bird Survey index routes and breeding males found/mi² in this census was 5.27, almost the same as for a similar area in North Dakota.

ACKNOWLEDGEMENTS

I thank R. A. Dolbeer, D. S. Koenig, and T. G. Scott for manuscript review; and G. M. Linz for statistical assistance.

Table 3. Numbers of immature (SY) and adult (ASY) male Red-winged Blackbirds by habitats in Iowa 1983-84.

Habitat		Number Males	
		SY	ASY
Wetlands			
Stream courses		14	91
Ponds		3	33
Sloughs		4	41
Lakes and lake edges		0	3
Sub-Total		21	168
Uplands			
Non-croplands			
Grazed pastures		6	27
Roadsides		8	37
Ungrazed pastures		5	26
Railroad right-of-ways		1	10
Farmsteads and windbreaks		0	20
Fence rows		4	7
Croplands			
Breeding habitats			
Alfalfa and other haylands		17	61
Tall weedy stubbles (>12")		3	5
Flooded stubbles		1	5
Feeding habitats			
Bare tilled, and short weedy stubbles (<12")		4	2
Newly seeded		1	1
Sub-Total		50	201
Total		71a/	369

a/Density of 0.89 (\pm SE0.19) SY males/100 acres or 5.68/mi²

Table 4. Relationship of data on Red-winged Blackbirds numbers for the American Breeding Bird Survey index and for this census, 1980-84.

State	Red-winged Blackbird Numbers			
	Index (Males/24.5 mi route) a/	Census (Males/mi ²)	Index:	
			Census Ratio	
Iowa	155.5	29.5	5.27	
Agassiz Lake Plain, ND b/	109.7	20.9 c/	5.25	

a/ From Johnson et al (1982). b/ The physiographic region of North Dakota most similar to Iowa. c/ From Besser (1985)

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Table 5. Species and Numbers of breeding residents a/ observed 18-26 May 1983-84 while censusing blackbirds in 50 160-acre sample areas in Iowa.

Species b/	No. c/	
Red-winged Blackbird.....	651	Ovenbird
Common Grackle.....	176	Chipping Sparrow.....
House Sparrow.....	132	Great Crested Flycatcher.....
European Starling.....	111	White-breasted Nuthatch.....
Brown-headed Cowbird.....	101	Veery
Barn Swallow.....	79	Upland Sandpiper.....
American Robin.....	69	Horned Lark.....
American Goldfinch.....	69	Red-bellied Woodpecker.....
Mourning Dove.....	45	Warbling Vireo.....
Brown Thrasher.....	44	Northern Bobwhite.....
Red-headed Woodpecker.....	39	Lark Sparrow
Blue Jay.....	37	Orchard Oriole
Eastern Kingbird.....	37	Canada Goose
House Wren.....	36	Downy Woodpecker.....
Bobolink.....	32	American Redstart
Gray Catbird.....	31	Black-capped Chickadee.....
Common Yellowthroat.....	30	Red-tailed Hawk.....
Eastern & Western Meadowlarks	30	Great Horned Owl
Dickcissel.....	28	Cedar Waxwing
Cliff Swallow.....	27	Willow Flycatcher
Grasshopper Sparrow.....	24	Loggerhead Shrike
Northern Oriole.....	23	Rufous-sided Towhee
Killdeer.....	22	Mallard
Indigo Bunting.....	19	Eastern Bluebird
Song Sparrow.....	19	Turkey Vulture
Rose-breasted Grosbeak.....	19	Great Blue Heron
Northern Cardinal.....	18	Belted Kingfisher
Field Sparrow.....	18	Green-backed Heron
Ring-necked Pheasant.....	18	Common Nighthawk
Eastern Wood Pewee.....	18	Barred Owl
Northern Rough-winged Swallow	18	Scarlet Tanager
Savannah Sparrow.....	17	Yellow-breasted Chat
American Crow.....	14	Least Flycatcher
Yellow Warbler.....	12	Chimney Swift
Northern Flicker.....	12	Hairy Woodpecker
Vesper Sparrow.....	11	Tree Swallow
Yellow-headed Blackbird.....	10	Swamp Sparrow
Rock Dove.....	8	Northern Harrier
Red-eyed Vireo.....	8	American Kestrel

a/ As classified by Dinsmore et al (1984) for Iowa.

b/Scientific names are available from Dinsmore et al (1984) or from American Ornithologists Union (1982).

c/ All ages and sexes.

Fig. 1. Location of 50 quarter sections censused in Iowa, 1983-84.

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Breeding Birds of the Sioux City Prairie

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The Sioux City Prairie, located within Sioux City, was purchased by The Nature Conservancy in 1983 as a remnant of the loess hill prairie ecosystem. The tract of 67.4 hectares (166.5 acres) encompasses some virgin prairie, dominated by big bluestem (*Andropogon gerardi*) or little bluestem (*A. scoparius*), depending on the position on a ridge or slope, and other prairie, successional or disturbed communities (Blankenship, Blankenship et al, unpubl. data, 1984). Floristic studies by the Blankenships are continuing.

METHODS

Several nature studies, including this breeding bird census, were undertaken to assay the richness of its flora and fauna. This study attempted to follow the procedure of George A. Hall (Hall, 1946). Although his criteria for habitat homogeneity and minimum size could not be met, his work remained the guideline.

The factors limiting census areas were the restriction of native prairies to 100 meter wide strips following loess hill ridges (size requirements) and the diversity of the various succession stages following prairie (habitat homogeneity requirements). A final decision was made to census the two largest prairie ridges, although disjunct, as one prairie, to be contrasted with a census of an equal area of "disturbed" prairie, including prairies invaded by smooth sumac (*Rhus glabra*), brome (*Bromus spp.*) and cottonwood (*Populus deltoides*) and those defaced by traffic and earth moving. The two prairie ridges totaled 7 ha (17.3 A); and the "disturbed" area, 6.5 ha (16.1 A). Surveys were conducted in the 1½ hours following dawn on 10, 13 and 21 June and 3 and 12 July, 1984.

The study was designed to detect and map the locations of all singing males. A singing male was assumed to represent a breeding pair. After subsequent visits, the mapped locations of singing males of each species were compiled onto one map to delineate the territories of those seen frequently. Exceptional species would be the non-territorial species, such as Cowbirds and Hummingbirds.

This study was conducted as a chapter project during May, June and July, 1984 by a number of members of the Loess Hills Chapter of the National Audubon Society at the request of The Nature Conservancy.

DATA

Singing males of 22 species (including Brown-headed Cowbird, (*Molothrus ater*) were observed on our densus routes (Table I). Nesting was confirmed for eleven of these species (Table I).

Table I. Species of singing males on Sioux City Prairie census areas, summer, 1984.

Listings of species on prairie habitats are separated from those of the "disturbed" area. An asterisk (*) denotes confirmation of nesting by observation. In each listing: the first number denotes the number of times detected; the second, the minimum number of pairs (max. seen at once); and the parenthetically enclosed, the dates detected (10, 13 and 21 June; 3 and 12 July).

Singing males species	Prairie	"Disturbed"
*Mourning Dove	2/1 (6/10,13)	1/1 (7/3)
Black-billed Cuckoo	—	2/1 (6/21;7/12)
Yellow-billed Cuckoo	—	3/3 (6/21)
Willow Flycatcher	—	3/1 (6/21;7/3, 12)
Least Flycatcher	—	1/1 (6/10)
*Western Kingbird	3/2 (6/10,21)	2/1 (6/10,21)
*Eastern Kingbird	2/1 (7/3, 12)	5/2 (6/10;7/3,12)
*American Robin	—	4/1 (6/10,13,21)
*Gray Catbird	2/1 (6/21;7/12)	5/2 (6/10,21;7/3)
Brown Thrasher	1/1 (7/12)	—
*Bell's Vireo	—	11/6 (6/21;7/3,12)
Warbling Vireo	—	1/1 (6/10)
Common Yellowthroat	4/1 (6/10,13,21;7/3)	—
*Yellow Warbler	—	21/5 (all)
Indigo Bunting	1/1 (7/12)	3/1 (6/10,13,21)
Dickcissel	16/7 (all)	4/3 (7/3,12)
*Field Sparrow	3/1 (6/13;7/3)	7/3 (6/21;7/3,12)
*Grasshopper Sparrow	20/7 (all)	—
*Eastern Meadowlark	14/4 (all)	—
*Brown-headed Cowbird	1/1 (6/21)	3/1 (6/13,21)
Northern Oriole	—	2/1 (6/13;7/3)
American Goldfinch (as yet non-territorial)	—	n/►12 (7/12)

DISCUSSION

In addition to their presence, the observed number of certain species was notable. Six distinct Bell's Vireos (*Vireo bellii*) were heard one morning, implying six pairs. This is considered an uncommon resident in the state, locally common in SW Iowa (Dinsmore, Kent, Koenig, Petersen, Roosa, 1984). These data suggest that they may be locally common in NW Iowa, as well.

At least two pairs of Western Kingbirds (*Tyrannus verticalis*), including one nesting pair, were seen on several occasions, agreeing well with their published status (Dinsmore et al, 1984).

A minimum of three breeding pairs of Eastern Meadowlarks (*Sturnella magna*) were evident — with the notable absence of Western Meadowlarks (*S. neglecta*). Dinsmore et al (1984) indicates that Eastern Meadowlarks may represent less than 1% of the presumed breeding Meadowlarks in NW Iowa. This seems to be the case, the authors having seen none, other than the three breeding pairs on the S. C. Prairie. Also, this in a high and relatively dry (big bluestem — dominant) Loess Hill Prairie rather than the lower, moister areas favored by E. Meadowlarks (Dinsmore et al, 1984; Wilson, 1983). Perhaps a study of the relationship between E. Meadowlarks and specific vegetative habitats would show a big bluestem prairie to be a sufficiently moist environment (implying denser, taller grasses).

All five singing Grasshopper Sparrows (*Ammodramus savannarum*) and all three singing Eastern Meadowlarks were found in the open, native prairie areas and none in the prairie areas disturbed or in subsequent succession stages, indicating the importance of prairie management in maintaining these two populations on this natural area.

Smith (1968) states that Grasshopper Sparrow territories range from one to three acres. The five territories mapped in this study (calculated from field maps, not measured in the field so as to minimize disturbance) were 1.20, 0.85, 1.33, 0.98 and 1.29 acres (0.49, 0.34, 0.54, 0.40, 0.52 ha), an average of 1.13 acres (0.46 ha). These territories may have been restricted somewhat by prairie boundaries, e.g. woody encroachment and human disturbance, the prairies being long and narrow.

The one Bell's Vireo nest found was parasitized by Cowbirds and abandoned by the Vireos. Subsequently, the pair appeared to establish a new territory nearby. Torres (1980) claims frequent Cowbird parasitization of this species.

An accidental burn temporarily reduced part of the prairie to bare earth and charred stubble in June. No activity was ever noted in this area at this time with the exception of rather heavy use by feeding W. Kingbirds.

The most interesting observations involved nesting Yellow Warblers (*Dendroica petechia*). A pair with a completed nest in a low-lying shrub was heavily harassed by a pair of Gray Catbirds that darted toward the nest only to be intercepted by the male Warbler. The observers could see no reason for this animated behavior. (The nest apparently failed during the subsequent 2 weeks).

However, 1-2 weeks later another male Yellow Warbler was observed building a nest in a small elm in one of the prairie's wooded draws. The nest was approximately half complete and consisted of a small handful of interwoven, compacted cottonwood (*Populus* sp.) down. The Warbler approached the nest secretly and quickly with each addition of down, a guard against predation of the future nestlings, we thought. Suddenly, with the Warbler gathering down from the ground, an Am. Robin (*Turdus migratorius*) swooped into the tree, picked the entire nest up in its beak and flew away with it. The Warbler's resistance was too little and definitely too late; but without the period of sullen dejection an anthropomorphist might imagine, the Warbler immediately went about the task of gathering more down. Perhaps this episode explains the previously observed Catbird's behavior, as well.

Although this prairie does not, at present, contain homogeneous habitat, either prairie or any other, of sufficient size to meet Hall's (1946) criteria for valid territory size determination and, hence, total population and density extrapolations (small areas contain too few individuals of a species to determine a valid average territory size and may contain only a fraction of the territory of a farther ranging bird); certain data gathered were valuable in determining the prairie's avian resources and in describing certain characteristics of individual species, including some prairie-indicator species.

ACKNOWLEDGEMENT

We wish to gratefully acknowledge members of the Loess Hills Audubon Chapter of Sioux City, especially Teri Dolezal, Marla Grier and Randy Williams, for their dedicated assistance.

Also, thanks to Dave Ewert for critically reviewing this article.

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I.O.U. Meeting - Spring 1985

FRANCIS MOORE

336 Fairfield St.

WATERLOO, IA. 50703

The spring meeting of the Iowa Ornithologists' Union was held at Marshalltown Community College South of Marshalltown, Iowa on Friday, Saturday and Sunday, May 17, 18 and 19, 1985. The meeting was hosted by members of the Central Iowa Ornithologists from the Marshalltown area, who did an excellent job of putting the weekend together. Friday evening began with a social get-together at 7:00 p.m. at the Continuing Education Building at Marshalltown Community College, where most activities for the weekend took place. There were a lot of people in attendance and everyone had a very good time and was able to talk about birding at their leisure.

On Saturday everyone was up bright and early to go on the field trips which met at 5:30 a.m. at the parking lot of Marshalltown Community College. Birding on the field trips was slow to say the least. It seems that the spring migration was about two weeks ahead of usual and therefore left our meeting short on migrants. There was not a large number of migrants found on any of the field trips.

Following the field trips there were three workshops for those interested in attending. Attendees had their choice of: "Selecting a Basic Bird Library", presented by Hank Zaletel; "Spring Shorebird Identification in Iowa", presented by John Robinson and "Identifying Spring Flycatchers", presented by Francis Moore. I heard many good comments about the workshops and certainly hope they will continue in the future. Everyone then broke for lunch and returned for the two paper sessions held at the Continuing Education Building. The first paper session was on "Identifying Iowa Birds by their songs" by Jack Holloway where we all got some useful hints on how to tell what birds are singing and to help us on our Iowa Breeding Bird Atlas during the next five years. It was a very good session. The second paper session was on "Iowa's Breeding Birds — What do we know about them?" by Linda Zaletel and Jim Dinsmore where we found out what we currently know about the breeding birds of Iowa and how much the Breeding Bird Atlas will help us to gain important knowledge that we do not know about our breeding birds in Iowa.

Doug Reeves, the Non-game Biologist for Iowa then gave an update on projects by his office (Barn-Owl project, American Kestrel nest boxes, etc.) After a few announcements we moved on to the business meeting.

President Pro-tem Carl Bendorf brought the business meeting to order at 3:25 p.m. on 18 May 1985. Carl, as acting president, took Mike Newlon's place since he moved to New Jersey earlier this year. We wish you the best, Mike, and good birding in the East.

Tom Kent made a motion that the minutes of the last meeting be approved as published in Vol. 54, No. 2 of *Iowa Bird Life*. The motion was seconded by Rick Hollis. The motion passed.

Carl reported that he had looked at the Treasurer's annual report and noted that everything appeared to be complete and correct. Hank Zaletel then went through the report and gave a complete breakdown of all items.

ANNUAL FINANCIAL REPORT 1984-1985

Balance on hand April 7, 1984..... \$ 3,801.34

Receipts:

Memberships	5,954.50
Book royalties	1,968.12
Spring meeting.....	58.26
Fall meeting.....	258.40
Kent memorial.....	487.00
Kile memorial.....	105.00
Book — Birding Areas of Iowa.....	119.62
Checklists	106.62
Raffle — Landenberger print	60.00
Sale of mailing list.....	24.00
Sale of donated American Birds	40.00
Patch.....	26.40
Interest.....	152.13
Decal.....	6.00
Iowa Bird Life	10.25
Reporting bird observations	2.00
List of Iowa Birds 1982	2.00
	<u>\$9,380.30</u>
	<u>9,380.30</u>
	<u>\$13,181.64</u>

Disbursements:

Monticello Express	4,601.44
Fall meeting.....	1,187.50
Tom Kent expenses for book Iowa Birds	889.29
Jim Dinsmore expenses for book Iowa Birds	538.30
Envelopes.....	185.91
Feeder survey	155.83
Postage for Iowa Bird Life.....	125.00
Postage for feeder survey	104.39
Postage for Treasurer	90.30
Tom Kent field reports expenses.....	149.72
Editor expenses:	
Fee	100.00
Phone	24.50
Postage	17.00
Flyer printing	67.44
Carl Bendorf V.P. expenses	28.19
Executive Council meeting room fee	25.00
Six month CD	2,000.00
Honorarium for Al Ferris.....	30.16
	<u>\$10,319.97</u>
	<u>10,319.97</u>
Balance on hand April 6, 1985.....	<u>\$ 2,861.67</u>

Savings

3 month CD	1,100.00
6 month CD	2,000.00
6 month CD	2,500.00
6 month CD	2,500.00
Endowment 3 year CD	5,750.00
Scholarship fund.....	767.13

SPRING CONVENTION

47

IOWA BIRDLINE — APRIL 23, 1985

Receipts:		
Balance	\$395.63	
Interest	18.57	
Donations	<u>275.00</u>	
	\$689.20	689.20
Monthly charge	234.36	
Balance	\$454.84	

Ray Cummins extended an invitation for the I.O.U. to hold its fall meeting on October 4, 5 and 6, 1985 at the Conservation-Fish Hatchery located North of Centerville. Eugene Armstrong made a motion that the Iowa Ornithologists' Union accept the offer for a fall meeting to be held at Rathbun Lake on the dates of 4, 5 and 6 October 1985. Hank Zaletel seconded the motion. The motion passed.

Carl then read a letter from Jim Luddington that extended an invitation to the I.O.U. to holds its spring 1986 meeting at Springbrook State Park, West of Des Moines. Tom Kent made a motion that we accept the invitation to hold the spring 1986 meeting on the dates of 15, 17 and 18 May 1986 at Springbrook State Park. Beth Proescholdt seconded the motion. The motion passed.

Barb Wilson brought up the idea of holding a joint spring convention between the Iowa Ornithologists' Union and the Nebraska Ornithologists' Union. After a short discussion and an informal show of hands it appeared that the majority of those present were in favor of the idea. It was decided to pursue the idea at a later time.

Linda Zaletel reported that the Iowa Conservation Commission is in need of money to help put up Am. Kestrel nest boxes. She made a motion that the I.O.U. donate \$100.00 to the I.C.C. for this purpose. Rick Hollis seconded the motion. Discussion followed on how, where and when the money would come from. Jim Dinsmore called for the question to end debate. Ray Cummins seconded the call for the question. The call for the question to end debate passed. The original motion by Linda Zaletel then was defeated on a voice vote.

Jim Sinclair made a motion that the I.O.U. sponsor a Bird-A-Thon for the spring of 1986 to be used for raising funds for worthwhile projects to be done by the I.O.U. Rick Hollis seconded the motion. Tom Kent told of other bird-a-thon's around the country and noted that rules have to be established for the Iowa Bird-A-Thon and ideas set down as to where the money is to go from the bird-a-thon. He also said that we will have to publicize the project to be able to make it be worthwhile. The motion passed on a show of hands, 20 votes for the motion, 6 votes against.

Ed Crocker voiced concern that the I.O.U. Scholarship Fund was not being used as it was set up to be used. Carl Bendorf said he would see to it that the Board of Directors of the I.O.U. got something started on use of the Scholarship Fund.

Carl Bendorf announced that he had appointed Bob Myers to serve a six-year term on the Records Committee and that he had also appointed Jim Dinsmore to serve the remaining one year of a vacancy created by the resignation of Darwin Koenig on the Records Committee.

Jim Dinsmore then took the floor to report on and explain the latest draft of the proposed new I.O.U. Constitution. After an indepth explanation Jim made a motion to adopt the new rewrite of the I.O.U. Constitution and that it come to a vote before the I.O.U. membership at this meeting; with its adoption it then becomes a substitute for the old document. Tom Kent seconded the motion. A short discussion followed. Jim Mairs called for the question to end debate. Cal Knight seconded the question. The motion for the question ending debate passed by voice vote. The vote for adopting the new I.O.U. Constitution was a unanimous show of hands, 36 votes

for the adoption, 0 votes against. Carl said he would be talking to various people to have the I.O.U. Articles of Incorporation drawn up so that they could be adopted at the fall meeting at Rathbun Lake.

Barb Wilson made a motion to bring forth the slate of officers from the nominating committee in order to elect officers for the new Board of Directors of the I.O.U. and to suspend the rules so that each office could be voted on separately and the new Board can be voted in to office. Rick Hollis seconded the motion. The motion passed on a voice vote.

Tom Kent made a motion that Jim Dinsmore, as acting chairman of the nominating committee, place on the floor for consideration the slate of officers for the upcoming year for their election by the membership. Mark Wiederleckner seconded the motion. The motion passed. The offices were then voted on separately with results as follows: Carl Bendorf for President for a two-year term, passed on a voice vote; Jim Dinsmore for Vice President for a two-year term, passed on a voice vote; Francis Moore for Secretary for a one-year term, passed on a voice vote; Hank Zaletel for Treasurer for a one-year term, passed on a voice vote; Bob Myers, Ray Cummins and Phyllis Harris for Directors-at-Large for two-year terms, passed on voice vote; Ross Silcock and Beth Proescholdt for Directors-at-Large for one-year terms, passed on a voice vote.

Rick Hollis made a motion that the I.O.U. thank the Central Iowa Ornithologists to show our gratitude and sincere appreciation for hosting this meeting. Tom Kent seconded the motion. The motion passed on a round of applause.

Jim Dinsmore discussed the Newsletter and requested input from the membership for information to be included in it.

Rick Hollis made a motion that the I.O.U. express their sincere appreciation to the past officers, Pete Petersen, Beryl Layton and Marlys Huff for their excellent work on the Executive Council. Tom Kent seconded the motion. The motion passed.

Tom Kent made a motion that we adjourn until after lunch on Sunday, 19 May. Barb Wilson seconded the motion. The motion passed. The meeting adjourned at 5:00 p.m.

Everyone then departed to either partake of additional birding or to get ready for the banquet later that evening. The evening buffet banquet proved to be very good and filling. We then enjoyed a great program, a slide tour entitled "Kenya Wildlife" by Carl Kurtz. The program was superb and made you think you were right there with him on safari.

Sunday morning field trips left from the parking lot of the Continuing Education Building as everyone went out to scour the countryside around Marshalltown to find and enjoy what birds could be found. Birds proved to be scarce because of the early migration patterns of most species this year but we all seemed to have a good time.

The meeting readjourned after a satisfying buffet luncheon at the Student Union at Marshalltown Community College. Carl Bendorf announced the appointment of the nominating committee for elections next spring and also asked for volunteers to serve on the membership and historical/archival committees.

Pete Petersen then led the compilation of the bird list with 136 species being seen on Sunday with 22 additional species seen Saturday only. The more interesting birds seen were: Worm-eating Warbler, Red Crossbill and a Pine Siskin feeding a fledgling. If anyone wants a list of the birds as recorded send your request to the Secretary of the I.O.U., a copy will be forwarded to you. The meeting was then adjourned.

Registered Attendance —

AMANA: Dan Ray

AMES: Jim and Steve Dinsmore, Mark Dixon, Sherry Dragula, David and Jean Edwards, Jack Holloway, Doug Huntrod, Paul Martsching and Mark Wiederleckner

BAXTER: Coleen Hill

BOONE: Doug Reeves

BURT: Rod Schmidt

CEDAR RAPIDS: Dale and Helen Fye

CENTERVILLE: Dorothy Cornett, Ray Cummins, Bill and Marjorie Heusinkveld, Thomas Johnson and Mary Montgomery

COLO: Hank and Linda Zaletel

CONRAD: Thelma Johnson, Barbara Larson and Hazel Stewart

DAVENPORT: Bill and Ann Barker, Pete and Mary Lou Petersen

DES MOINES: Renee Baade, John Fleckenstein, John and Maggie Hoogerheide, and Dick and Pauly Mooney

DIBUQUE: George and Frieda Crossley

ELDORA: Nancy Slife

FERGUSON: Ken and Jeanette Graham

FORT DODGE: Mary Kuhlman and Max and Mina Landes

GARWIN: Eleanor Singer

GREEN MOUNTAIN: Margaret and Mark Goecke

HASTINGS: Barbara Wilson

INDIANOLA: Jim Sinclair

IOWA CITY: Carl Bendorf, Rick Hollis, T.H. Kent, Cal and Bernie Knight, Joel McMillin, Thomas Staudt and Robert Towner

IOWA FALLS: Alberta Walsh and Don Wilson

KEOKUK: Bob and Mary Cecil

LAKE MILLS: Sibyl Sand

LISCOMB: Beth and Mark Proescholdt

MADRID: Laura Jackson

MARSHALLTOWN: Evelyn Betts, Avon Burt, Norm and Jean Eige, Sharon Flotho, Laura Glasgow, Dick and Marlys Huff, John King, Gladys Lacy, Jim and Pauline Mairs, Paul and Darlene Maytag, Carol McMillan, Ed and Betty Savage, Don and Alice Smith, Linda Tasler, Russell Widner, Jim and Grace Wignall, and Dale and Lois Wilson

MASON CITY: Thelma Fromm and Genevieve Nelson

MELBOURNE: Glen and Mabel Vauthrin

MONTEZUMA: Darwin Koenig

MURRAY: Tharon Flaherty

PAULLINA: Irwin and Mary Heusinkveld

PELLA: John Bowles

PERRY: Bob Myers

SIOUX CITY: Wayne and Lorraine Livermore

STATE CENTER: Jim and Dorothy Maish

STORM LAKE: Edwin and Virginia Crocker

ST. ANTHONY: Linda Brown and Carl Kurtz

TAMA: Nick and Marge Kubik

UNION: Phyllis Harris and Ramona Sommerlot

WATERLOO: Mr. and Mrs. H.A. Kirchgatter and Francis Moore

WELLMAN: Barbara Henderson

NO TOWN LISTED: Michael Foley

GUESTS: Dorothy Phillips from Lester, England, Joan Bulwalda, Mary Gift, Wendall Graham, Martha May, Sara McMillan and Dorothy Rich from Marshalltown.

Birding Areas Update — Warren County

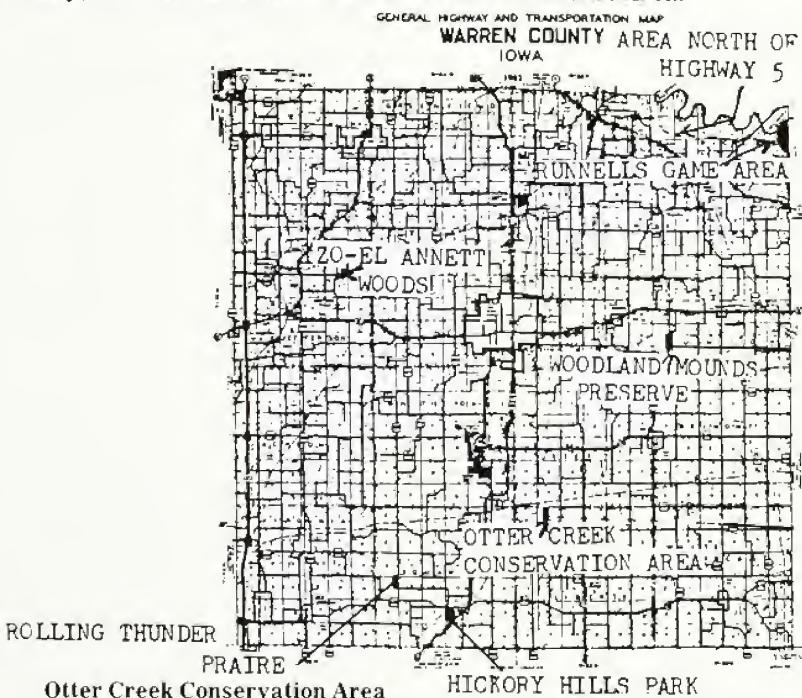
JIM SINCLAIR

810 N. B Street

INDIANOLA, IA. 50125

The purpose of this article is to update the Iowa birder on birding areas of Warren County. Since 1977, when Rick McGeough authored the first birding areas of Warren County (IBL V47:16-17), a number of new parks and wildlife areas have been created in Warren County. This update will familiarize the reader with the location and the nature of each of these areas.

The first five areas to be described are Warren County Conservation Board parks or preserves. The sixth area is a refuge constructed and managed by the Iowa Conservation Commission and the seventh is a general area in Warren County, much of which lies within the Red Rock Wildlife Area.



This eighty acre park is noteworthy for its ease of access and preponderance of edge habitat. Located astride a ridge overlooking Otter Creek, this area includes a small reconstructed prairie complete with observation deck, an extensive and well-maintained trail system, primitive campsites, wildlife food plots, picnic area and a pond.

Red-tailed Hawks and Turkey Vultures are often to be seen riding the thermals above the ridge. Sparrows abound along the woodland edges and each year sees Eastern Bluebirds inhabiting the several boxes put up for their benefit.

To get to Otter Creek from Indianola, take Highway 69-65 south, turn east on 65 to Brown's Chapel, approximately 1.5 miles, turn south on the gravel road and follow the signs for Otter Creek.

Note: All Warren County Conservation Board parks and preserves signs are brown rectangles with the name of the park and an arrowhead indicating which direction one should turn.

Zo-el Annett Woods

This new addition to the Warren County Conservation Board's parks and preserves system consists of ten acres of primarily oak-hickory woodlands. The park is small but includes a picnic area and beautiful trail highlighted by a spectacular suspension bridge.

As this is a new park it has not been birded extensively, however, proximity to the Middle River should insure some good spring and fall warblers.

Zo-El Annett Woods can be found by taking Highway 92 west from Indianola for approximately 7 miles. Turn north on the gravel and follow the signs to Zo-El Annett Woods.

Hickory Hills Conservation Area

Hickory Hills combines a variety of habitats within its one hundred and sixty acres including upland woods, forested floodplain and grassland. Both the hiking trail and the service road provide excellent birding. Facilities include tent and trailer camping, a picnic area and a barn with electricity which is available to groups.

Spring and fall Hickory Hills is a very good location for warblers. Interesting species seen include Hooded Warbler and Bay-breasted Warbler. Last spring (1984) Red-tailed Hawks nested within the park and Barred Owls can be heard frequently.

To get to Hickory Hills, take Highway 69 south from Indianola. Hickory Hills is located on the west side of Highway 69 approximately thirteen miles south of Indianola and about 1.5 miles south of the intersection of 69 and G-76.

Woodland Mounds Preserve

This area includes the one hundred and eighty-five acre preserve plus one hundred and forty acres leased which makes for a total of 325 acres open for public use. The area is predominately oak-hickory woods with some forested floodplain. The hiking trails and the service road are well maintained and give access to most of the area. There are two picnic areas and hunting is allowed in season. Woodland Mounds is one of the largest continuous stands of timber in the county and has not been extensively birded.

Species of interest include abundant Indigo Buntings, nesting Ovenbirds and Kentucky Warblers. Wild Turkeys have been stocked this winter adding to the diversity of wildlife.

Woodland Mounds can be located by traveling east from Indianola on Highway 92 for approximately five miles. At the Ackworth town sign, turn south on gravel and follow signs to Woodland Mounds Preserve.

Rolling Thunder Prairie

This prairie, comprising one hundred and twenty-two acres, is one of the larger tracts of native prairie in the state of Iowa. A true Iowa prairie, Rolling Thunder's hills are tall grass prairie surrounding wooded ravines and a spring fed creek. The area is managed to enhance and preserve the prairie. There are no trails, however, if one avoids the numerous blackberry patches, accessibility is relatively easy. Prairie grasses and flowers are at their best in July and August, hunting is allowed in season.

Interesting species include Bell's Vireo, Yellow-breasted Chat and Rough-legged Hawk. It is thought that both Upland Sandpipers and Northern Harriers have made nesting attempts here within the last few seasons. Sparrows are abundant in the fall.

To get to Rolling Thunder Prairie, proceed south from Indianola on Highway 69 to the intersection of 69 and G-76, approximately thirteen miles. Turn west on G-76 to R-57, approximately three miles, turn north on R-57. Rolling Thunder is located on the west side of R-57, .5 mile north of G-76.

Runnels Game Area

Situated in the very northeast corner of Warren County is the Runnels Game Area which is within the larger Red Rock Wildlife Area. The game area is managed by the Iowa Conservation Commission with a series of dikes and levees to control water levels. This is done to make the area attractive to migrating waterfowl. The resulting habitat is also ideal for shorebirds and waders and the concentration of birds attracts numerous raptors.

The numbers of birds, diversity of species and ease of access make the Runnels Game Area one of the finest birding areas in Central Iowa. Interesting species observed the last few seasons include Piping Plover, Northern Phalarope, Marbled Godwit, Merlin, and Peregrine Falcon. Over twenty species of shorebirds have been observed at the Runnels Game Area. Early spring can be excellent for ducks and Bald Eagles. The best shorebirding is in August and September and the large concentrations of Great Blue Herons and Great Egrets peaks in mid to late September. Because the Runnels Game Area is an inviolate refuge there is no trespassing during the waterfowl seasons.

From Des Moines take Highway 5 southeast through Carlisle and Hartford to Highway 316. Turn north on 316 for approximately 1.5 miles. Parking for the Runnels Game Area is on the immediate right, after the overpass. From Indianola take Highway 92 east to G40 to Pleasantville. Turn northwest on Highway 5 to 316. North on 316 to the Runnels Game Area.

Area North of Highway 5

This last area is not a specific game area or park, however, in flood years such as the last two, much good birding can be found. Floodwaters from the Red Rock Reservoir have backed up as far as Carlisle. As the waters recede excellent habitat is created along the whole northeast corner of Warren County north of Highway 5. Much of this area is within the Red Rock Wildlife Area with access gained by many abandoned gravel roads.

One specific spot of interest in this area is the sewage lagoons on the east edge of Carlisle which contain the only known nesting site of Yellow-headed Blackbirds in Warren County. Other interesting species seen in this general floodplain area include a Red Knot, Cattle Egrets and Little Blue Herons.

A Survey of Bird Egg Collections in Iowa

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INTRODUCTION

Avian eggshell collections have been increasingly recognized in recent years as valuable resources. While being useful for reference, teaching and display, they are particularly important as tools for research in a wide variety of fields. A recent survey (Panel on Systematics Collections in King and Bock 1978) revealed that at least one-third of the professional ornithologists in the United States regularly use egg collections in their work. Except for attempts by Banks et al. (1973), Kiff (1979), and Dinsmore et al. (1984) to document the larger collections, little has been reported on the status of egg collections in Iowa. Stimulated by our work with the Luther College egg collection, we conducted a comprehensive survey of state egg holdings. We report the results in this paper and present a description of the newly-curated collection at Luther College.

EGG COLLECTIONS IN IOWA

Introduction. Banks et al. (1973) and Kiff (1979), in their efforts to document all North American egg collections of at least 200 sets, noted two somewhat

sizeable collections in Iowa, one at Coe College (400 sets estimated) and another at the Putnam Museum (1580 sets estimated). These two collections were again noted by Dinsmore et al. (1984) in their review of Iowa's ornithological holdings. Nowhere in the literature could we find mention of smaller collections in the state.

Methods. A total of 61 survey questionnaires was sent to all four-year ($n = 28$) and two-year ($n = 23$) colleges in the state, and to all public and private museums ($n = 10$) judged as possible holders of egg collections. In addition, an effort was made to locate private collections within the state. Information requested included the following:

1. Name of institution.
2. Collection mailing address.
3. Collection curator.
4. Total number of egg sets with date and locality data, and total number without data. If the set total was estimated, this is indicated.
5. Total number of eggs.
6. Total number of species, families, and orders represented in the collection.
7. Geographic areas represented in the collection.
8. Represented species of special interest.

We received responses from 14 colleges and three museums, and contacted two additional colleges by telephone. Most of the forms not returned had sent to small institutions and we assume that these lack collections.

Results and Discussion. The survey results are presented in Table 1. The seven known collections in the state are arranged by size in the table. It should be noted that Iowa State University reported a sizeable collection, possibly as large as 1400 sets. However, the collection is not yet sufficiently organized to permit inclusion in a state listing (J.J. Dinsmore pers. comm.). A similar situation exists for the Coe College collection (H.H. Hadow pers. comm.) ; however, because it has been cited previously in national surveys (Banks et al. 1973, Kiff 1979), we have included it in Table 1. Of interest are the eggs of extinct species reported from two institutions. Together, the collections in Iowa may contain as many as 4,755 egg sets, a valuable and largely untapped resource.

LUTHER COLLEGE EGG COLLECTION

Introduction. The Luther College egg collection, one of those smaller collections which has heretofore escaped widespread attention, grew out of two donations to the Hoslett Museum of Natural History. The first donation, about 25% of the collection's eggs, came in the early 1970s from the Norwegian-American Museum (Vesterheim) in Decorah. The second donation, comprising about 65% of the collection, was made by Rolf V. Craft in December 1980. The eggs remained untouched, in boxes and coffee cans, until 1981, when Amy Ludwig of the Hoslett Museum staff began the task of sorting and identifying those with data. We decided in the fall of 1983 to organize and curate the collection in accordance with generally accepted standards.

Materials and Methods. The sets are stored in open cotton-lined boxes of acid-free paper, arranged in standard trays placed in metal Lane museum cases. On each egg is written, in indelible ink, a Luther College accession number and the A.O.U. number for the species (A.O.U. 1983:797-809). Nearly all of the eggs retained A.O.U. numbers recorded by the original collectors at the turn of the century, enabling us to identify them accurately (see Reed 1904). The entire collection is arranged in A.O.U. sequence. Two card catalogs, one arranged taxonomically and the other arranged numerically, permit easy access to information about the collection.

Table 1. Survey of bird egg collections in Iowa.*

Institution (Curator)		Sets with Sets	Egg Data	Eggs	Species	Fami- lies	Orders	Geographic Scope of Collection	Species of Special Interest
University of Iowa, Iowa City, Ia 52240 (George D. Schrimper)		est.	est.	est.	est.			North American	
Putnam Museum Davenport, Ia 523804 (Janice Hall)		1500	1200	4000	250	85	20	North American	Passenger Pigeon, Carolina Parakeet, Ivy-billed Woodpecker
Coe College, Cedar Rapids, Ia 52420 (Harlo H. Hadow)	est.	400	?	?	?	?	?	Iowa, Midwest	
Luther College, Decorah, Ia 52101 (Tex A. Sordahl)		275	56	677	177	37	17	North America Scandinavia	Ostrich, Dusky Seaside Sparrow nest
Ellsworth Comm. Coll., Iowa Falls, 'ia 50126 (William H. Schmidt)	196	0	655	154	37	17	17	North America	Emu, Ostrich Carolina Parakeet
Univ. of Nor. Iowa, Cedar Falls, Ia 50614 (Ron C. Wilson)	159	25	530	77	38	16	16	North America England, S.Africa Australia Argentina	
Wayne County Historical Muse., Corydon, Ia 50060 (Neva Trumbo)	21	0	365	24	?	?	?	Wayne Co. Iowa	

*An additional collection, at Iowa State University, is as yet of undetermined size, scope, and diversity; however, it probably ranks second or third in size among state egg collections.

Results and Discussion. The Luther College egg collection currently contains 275 egg sets, 56 of them with data. Its 677 eggs represent 177 species of 37 families and 17 orders (Table 2). The majority of the eggs are those of a broad range of North American species, but a significant minority represent Scandinavian birds. Little is known of the history behind most of the eggs except that some were collected by Ollie Reed, C.C. Smith, and Hall Thomas; nearly all were collected in the 1890s. Thirteen egg sets are recent additions by the authors. A complete inventory list of the Luther College egg collection may be obtained from the second author. The collection is available for use by visiting researchers; inquiries should be directed to the second author.

Table 2. Taxonomic diversity (following A.O.U. 1983) represented in the Luther College egg collection.

Orders	Number of Families	Number of Species
Struthioniformes	1	1
Gaviiformes	1	2
Podicipediformes	1	3
Pelecaniformes	1	1
Ciconiiformes	1	5
Anseriformes	1	6
Falconiformes	1	3
Galliformes	1	7
Gruiformes	1	3
Charadriiformes	6	23
Columbiformes	1	3
Cuculiformes	1	4
Strigiformes	1	6
Caprimulgiformes	1	1
Coraciiformes	1	1
Piciformes	1	3
Passeriformes	16	105
Totals	17	177

SUMMARY

A comprehensive survey of egg collections in Iowa was carried out. Responses from 19 institutions revealed eight collections in the state, two of which are not yet curated. Collections in Iowa may total over 4,700 egg sets. The collection at Luther College, ranked fifth in size in Iowa, grew out of two donations and now is comprised of 677 eggs in 275 sets, representing 177 species. It is hoped that publication of the survey results will help reveal the valuable resource in Iowa's egg collections.

ACKNOWLEDGMENTS

We would like to express our gratitude to Rolf Craft for donating the eggs he found in an attic, to Amy Ludwig Bakke and Robert Fitton for their work with the egg collection, to Janet Hemesath for help with the survey, to David Roslien for commenting on the manuscript, and to the curators who responded to our questionnaire.

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REPORT OF THE I.O.U. RECORDS COMMITTEE FOR 1984

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The Records Committee reviewed 40 records of birds seen in 1984 and 2 old records. Of the 1984 records, 31 were accepted and 9 were not. Of the latter, 1 sighting was in Illinois (Red Knot), 1 was from a captive population (Trumpeter Swan), and 7 were not convincing beyond reasonable doubt. It should be noted that none of the 1984 records were considered to be incorrectly identified. All of the 1984 records will be listed below.

One of the old records was not convincing to the Committee. The other was a belated documentation by a different observer of a previously rejected report of a Mississippi Kite at Cardinal Marsh on 29 May 1978. Based on the additional evidence, the record was accepted. This species thus moves from extirpated to accidental on the state list.

The term of James J. Dinsmore expired and will be filled by Robert K. Myers. Darwin Koenig asked to be relieved from the committee and Dinsmore was appointed to complete Koenig's unexpired term. Current committee members and the year their terms expire are: Dinsmore (1986), Joseph P. Schaufenbuel (1987), Barbara L. Wilson (1988), Peter C. Petersen (1989), W. Ross Silcock (1990), Myers (1991), and Thomas H. Kent, Secretary (appointed by other members).

The committee prepared a draft of new by-laws to conform with the new constitution of the Iowa Ornithologists' Union. This will be presented to the Board of Directors for approval.

The committee researched and discussed the recurring problem of determining whether a bird is in Iowa or an adjacent state. A summary of the findings is included as a separate report.

RECORDS ACCEPTED

Red-throated Loon: 2-20 Apr 1984, Cedar Lake (Bendorf, **IBL** 54:52-54). A cooperative bird was seen by many and photographed for the 3rd acceptable state record.

White-faced Ibis: 28 Apr 1984, Otter Creek Marsh (**IBL** 54:42) and 1 May 1984, North Twin Lake (**IBL** 54:42). These are the 7th and 8th accepted records for this species.

Bean Goose: 29 Dec 1984 into Jan 1985, DeSoto NWR (**IBL** 55:12). An eastern race bird of this Eurasian species is unprecedent for our area. There is only one West Coast record outside of Alaska. The rarity of this race in captivity, the lack of feather wear of a captive bird, and recent vagrancy of other Siberian species was convincing to all but one of the committee members.

Eurasian Wigeon: 15-17 Apr 1984, Sweet Marsh (Moore and Myers, **IBL** 54:54). A single bird seen by many observers is the 2nd well-documented record for the state.

Black Scoter: 26-29 Oct 1984, LeClaire (Bendorf, **IBL** 55:31-32). Six birds were seen on the main channel of the Mississippi River for the 11th documented record of this species.

Barrow's Goldeneye: 17 Mar-6 Apr 1984, Forney Lake (Silcock, **IBL** 54:75-77). A cooperative male was photographed for the first definite state record.

Ferruginous Hawk: 22 Sep 1984, Liscomb (**IBL** 54:111). An individual of this difficult-to-identify, casual species was well described. The bird was wearing a red patagial tag that was attached in either North or South Dakota.

Greater Prairie-Chicken: 2 Jan 1984, Osceola Co. (Spengler **IBL** 54:21). A single bird was 5 counties away from the site of 1980 and 1982 introductions (Manona Co.) and may have been a winter visitor from Minnesota.

Black-necked Stilt
June 1, 1984
Union Slough NWR
John Guthrie photo



Black-necked Stilt: 1-2 Jun 1984, Union Slough NWR (IBL 54:82). A pair was photographed for the first definite state record. There are 8 old undocumented reports.

Whimbrel: 12-13 May 1984, Hendrickson Marsh (IBL 54:45,82). This is the 15th state record.

Red Knot: 15 Sep 1984, Hendrickson Marsh and 16-27 Sep 1984, Coralville Reservoir (IBL 54:113). These birds, both in basic plumage, represent the 4th and 5th documented records for the state.

Ruff: 1 Sep 1984, Hendrickson Marsh (IBL 54:114). This is only the 3rd Iowa record for this Eurasian species, which is apparently establishing itself in North America.

Lesser Black-backed Gull: 1-5 Dec 1984, Red Rock Reservoir (Kent and Bowles, IBL 55:21-22). A bird photographed below the dam is the first Iowa record for this species, which is increasing in numbers and range in North America.

Black-legged Kittiwake: 21-22 Nov 1984, Saylorville Reservoir (IBL 54:115). An immature bird provided the 6th well-documented Iowa record.

Least Tern: 19 May 1984, Cone Marsh (IBL 54:46). The dark outer primaries provided an important field mark for this briefly observed bird that occurred at an uncommon location.

***Selasphorus* sp.:** 25 Sep-2 Oct 1984, Chester (Moore, Myers, and Kent, IBL 54:104-106). An immature male hummingbird, probably a Rufous, was photographed at a feeder. Based on the pictures and descriptions, the bird could not be definitely distinguished from the much more unlikely Allen's Hummingbird. Measurements and close examination of tail feathers after netting would have allowed specific identification. This is the first state record for this genus.

Rock Wren: 21 May 1984, near Stone Park, (Kent and Silcock, IBL 54:37-38). This is only the 3rd report since 1910 and the first photographed for the state.

Mountain Bluebird: 22 Dec 1984, near Lamoni (Livingston, IBL 55:19-20). A wintering male was seen by many and photographed for 4th state record.

Solitary Vireo: 20 Dec 1984, near Lost Nation (IBL 55:12). A Christmas Count bird is the latest on record by seven weeks.

Common Yellowthroat: 20 Dec 1984, near Keokuk (IBL 55:29). Iowa's first winter record of this species was long overdue.

Western Tanager: 15 May 1984, near Sabula (IBL 54:86). Iowa's 6th record of this western species came from the most easterly point in the state.

Smith's Longspur: 29 Mar 1984, Montgomery Co.; 30 Mar 1984, Page Co.; 19 Apr, 7 May 1984, Johnson Co.; and 22 Apr 1984, Story Co. (all IBL 54:50). Multiple spring sightings of this species continued. The Records Committee will no longer review reports of this species, although observers should continue to document it.

Great-tailed Grackle: 15 May 1984, Riverton A. (IBL 54:50); 17 May-3 Jun 1984, Finn Pond (IBL 54:50,86); 21 Jun 1984, IPL Ponds (IBL 54:86); 22 Dec 1984, Mills Co. (IBL 55:12). Three sightings in southwest Iowa and a nest in Greene Co. comprise the second year's sightings of this species in Iowa.

RECORDS NOT ACCEPTED

Glossy Ibis: 11 Jun 1984, Louisa Co. (IBL 54:80-81). The description submitted depended heavily on the presence of blue skin at the base of the bill of these 2 birds. Iris color was not adequately noted and there was no indication of the presence or absence of light edging to the blue that is characteristic of this species. The distance may have precluded such observations, but the blue facial skin would also be difficult to see at the distance cited (1000 feet). The Committee could not positively eliminate an immature White-faced Ibis. Nevertheless, the data and location are suggestive of wandering Glossy Ibis, a species not yet acceptably documented for Iowa.

Trumpeter Swan: 23 Dec 1984, Otter Creek Marsh (IBL 55:24). A flock of 9, some with neck bands, are known to have migrated from a captive flock at Carver Park Reserve in Hennepin County, Minnesota, and, thus, are not considered wild birds according to American Birding Association rules. Any swans in Iowa should be carefully identified and documented, except for Tundra Swans in northeast Iowa.

Ferruginous Hawk: 25 Oct 1984, near Laurens (IBL 54:111) and 23 Dec 1984, Otter Creek Marsh (IBL 55:26). The main problem with both of these descriptions was failure to adequately describe the position of the white wing patches. A drawing would have helped. The white wing patches on the upper surface of the wing are perpendicular to the body in the Ferruginous and parallel to the body in the Red-tailed Hawk. The white does not extend to the leading edge of the wing in Ferruginous Hawks but may in Red-tails. The mark, if present, is much more variable in Red-tails. If using the feathered tarsus as a field mark, observers should take care that the bird is fully upright, and not crouching, as many hawks do on posts. Crouching may cause the legs to appear feathered when they are not. Leg feathering is best observed in flight if one can get a close enough view. The location of rufous coloring on the wings should also be noted.

Peregrine Falcon: 31 Jan 1984, Ames (IBL 54:17) and 23 Jun 1984, Ames (IBL 54:82). In both cases the details submitted were sketchy, and the birds were observed without binoculars. Both dates would be unusual for this species.

Greater Yellowlegs: 15 Dec 1984, Saylorville Reservoir (IBL 55:12). This record narrowly missed acceptance. Objections were based on the sketchiness of the description, which depended on a value judgement of bill size and shape. Bill size can be described in terms head length and thickness at base compared to tip. The relatively long legs and thick knees of the Greater Yellowlegs is an additional field mark, but the call note of a flushed bird is even more helpful.

Red Knot: 1 Sep 1984, Hampton, Illinois (IBL 54:113). The identification was accepted but the bird was not demonstrated to be in Iowa.

Sprague's Pipit: 10 Aug 1984, Sioux Center (IBL 54:118). The Committee was concerned that this secondhand description was too brief and vague. Features, such as bill shape and gait, that would identify the bird as a pipit were not mentioned. The date would be early for fall migration of Sprague's Pipit.

FIELD REPORTS — SPRING 1985

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WEATHER AND HABITAT CONDITIONS (by Jim Sandrock)

Spring 1985 stood in sharp contrast to the same period of the three preceding years. March, April, and May were all notably warmer and more moderate in most areas of the state. March and April were the warmest since 1977, with high temperature recorded both months. The unusual warmth accelerated early spring flowering, and the vegetation developed well ahead of normal.

Not unusually, March had some low temperatures (4 F at Elkader and 5 F at Cresco on the 6th) and high readings (82 F at Burlington and Keokuk). Precipitation, too, showed a wide range, but was especially heavy in the southeast (where Fort Madison recorded the greatest precipitation since 1852 with 6.14 inches during the month). Most of the March snow fell at the end of the month, with 10 inches at Carroll and Sioux City on the 31st. The monthly average snowfall ranged from a trace in the southeast to 10.3 inches in the northwest. In general, however, March 1985 produced less snow and glazing than Iowans have come to expect.

April was the 7th warmest in 113 years of record keeping. Pocahontas, Titonka, Britt, Norwood, Sioux Center, and Cherokee all recorded temperatures of 92 and 93 F during the latter days of the month. While the beginning of April recorded some temperatures in the low teens and some snow cover at that time, the general warm pattern dominated the period.

The overall warm trend continued into May, with temperatures averaging above normal in almost all areas of the state. Precipitation varied greatly, with some areas of the state (southeast, for example) reported as quite dry, while other sectors recorded average or above average moisture.

GENERAL TRENDS

The warm weather was associated with early migration of many species, including record early dates for at least 16 species. There were many more second and third early dates, especially on the weekend of April 27-28 when many passerines were first noted. Waterfowl and gulls moved through the state early and rapidly, so few large concentrations were observed. In many areas of the state, especially eastern Iowa, water levels were low and this was associated with decreased numbers of marsh birds such as bitterns, rails, and Yellow-headed Blackbirds. Shorebirding, however, was above average with a prolonged migration period. The raptor migration was not concentrated except for a sharp peak in Broad-winged Hawks in late April. Very few accipiters were reported, but falcons numbers were similar to the last few years. Many passerines arrived early, setting record early dates, but, with a few isolated exceptions, the usual "warbler waves" were not evident. Several contributors complained that this was the worst spring migration they had experienced.

UNUSUAL SIGHTINGS

This spring was anticlimactic after 1984, yet there were some good finds. Undoubtedly the most outstanding was the Curlew Sandpiper that stopped briefly at Nashua to be seen and photographed by one observer; the army that arrived the next day was disappointed. Other documented accidentals included Eurasian Wigeon, Lesser Black-backed Gull, Black-headed Grosbeak, and Smith's and Chestnut-collared Longspurs. A report of an extirpated species, Trumpeter Swan, will provoke further discussion of when this species should be returned to the active list. Reports, both secondhand, of two accidental species could not be included in this report because no supporting evidence was provided. Casual species reported included Red-necked Grebe, Snowy Egret, Ferruginous Hawk, Prairie Falcon, Yellow Rail, King Rail, Buff-breasted Sandpiper, Bohemian Waxwing, Lark

Bunting, and Sharp-tailed Sparrow.

SPECIES DATA (* = documented)

In these accounts, "record earliest (or latest)" is used in reference to the dates published in *Iowa Birds* or occurrences since 1982; "early (or late)" means earlier (or later) than the third earliest (or latest) date in *Iowa Birds*; and "first (or last)" is relative to the current year--not a record date.

COMMON LOON: Early: 1 on 27 Mar at Little Wall L. (SD), 3 on 30 Mar in Appanoose Co. (RLC), 1 on 2 Apr at L. Ahquabi (JSi); peak: 6 on 8 Apr at Little Wall L. (BPr, MPr, AC); last: singles on 16 May at Dewey's Pasture and Little Wall L. (JR). Fewer were seen than usual and none were reported from eastern Iowa.

PIED-BILLED GREBE: First: 1 on 8 Mar at Willow Sl. (BLW); peak: 23 on 7 Apr at Willow Sl. (BLW).

HORNED GREBE: Early: 2 on 16 Mar at Storm L. (DBi), 1 on 19 Mar at Little Wall L. (SD); peak: 5 on 30 Mar in Appanoose Co. (RLC); last: 1 on 2 May in Warren Co. (JSi).

RED-NECKED GREBE: 1 was described at Princeton A., Scott Co., on 10 Apr (Gil Sandvich fide PCP).

EARED GREBE: First: 2 on 3 Apr at Anderson L. (JAH); peak: 12 on 27 Apr at Willow Sl. (RCe, FLM); last: 2 on 31 May at IPL Ponds (BLW). There were more reports than for Horned Grebe, but all were from the western half of the state.

WESTERN GREBE: 2 at Rush L., Osceola Co., on 17 May (MMB) were the only ones reported.

AMERICAN WHITE PELICAN: Early: 8 on 24 Mar in Appanoose Co. (RLC), 49 on 27 Mar in Fremont Co. (RLC), 200 on 30 Mar at Riverton A. (RCe, FLM); peaks: 385 and 550 on 14 Apr in Guthrie (SD) and Mills(BLW) counties; last: 110 on 27 May in Dickinson Co. (SD). In eastern Iowa, singles were at Otter Creek M. on 9 Apr (CT) and Cone M. on 14 Apr (GDW).

DOUBLE-CRESTED CORMORANT: Eastern Iowa numbers may have been down slightly. In western Iowa, 102 were in Guthrie Co. on 4 May (SD) and 350 were in Fremont Co. on 6 May (TB).

AMERICAN BITTERN: Singles were reported from 10 counties and 3 birds from another.

LEAST BITTERN: Reported from Dickinson, Kossuth, Bremer, Greene, and Story counties; 8 were at Jemmerson Sl. on 16 May (JR).

GREAT BLUE HERON: 108 were at Coralville Res. on 23 May (THK); 11 nests were found at Cardinal M. on 25 May (RPB,CAB).

GREAT EGRET: Early: 1 on 27 Mar at Anderson L. (SD), 3 on 28 Mar in Dallas Co. (CT); peak: 11 on 21 Apr in Polk Co. (SD). Reported from 7 other locations.

SNOWY EGRET: A record early bird was at Hendrickson M. on 27-28 Mar (*HZ, *SD); another was at Red Rock Res. on 21 Apr (*SD).

LITTLE BLUE HERON: 2 at Otter Creek M. on 13 Apr (BPr, MPr); 1 in Dallas Co. on 17 Apr (RKM); 1 at Burlington on 20 Apr and 5 (2 ad., 3 imm.) at Burlington on 26 May (Fullers).

CATTLE EGRET: 1-3 were reported from 8 locations and 11 were at Swan L., Johnson Co., on 20 Apr (RJH). This is many fewer than the last two years.

GREEN-BACKED HERON: First: 1 at Marshalltown on 23 Apr (MPr).

BLACK-CROWNED NIGHT-HERON: Early: 1 on 31 Mar at L. Manawa (B.J. Rose fide TB); peak: 16 on 25 Apr in Osceola Co. (MMB); 1-7 at 7 other locations.

YELLOW-CROWNED NIGHT-HERON: Singles were at Burlington on 12 May (Fullers) and in Allamakee Co. on 29 May (SD, JJD).

IBIS: None reported.

TUNDRA SWAN: 1 was early at Cone M. on 3 Mar (THK); others were from widely scattered locations: 3 in Ringgold Co. on 26 Mar (JRL fide JDG), 30 at Saylorville Res. on 7 Apr (SD), 10 at Muskrat Sl. on 9 Apr (JF), and 1 in Guthrie Co. on 14 and 28 Apr (SD, BPr, MPr).

TRUMPETER SWAN: I was reported from Clay Co. on 8 Apr (*MMB). Birds from a captive flock in the Minneapolis area are now dispersing in both winter and summer and they are not yet considered wild birds. One of the birds identified by neck band number at Otter Creek M. last December was a 3-year-old female that wintered in Oklahoma and returned to Minnesota via Lincoln, Nebraska, to settle north of St. Cloud, Minnesota, with one other bird (L. N. Gillette letter to THK).

MUTE SWAN: None reported.

GREATER WHITE-FRONTED GOOSE: The usual gradient decreasing from west to east was noted with peak count of 550 in Guthrie Co. on 30 Mar. (SD). A few stragglers remained in central Iowa into late April and early May and singles were in Fremont Co. on 26 May (TB) and Mills Co. on 27 May (BLW).

SNOW GOOSE: 3,000 were in Dickinson Co. on 18 Mar (DCH) and 8,575 at Riverton A. on 27 Mar (RLC); 5 lingered at Hendrickson M. on 25 May (PWM).

ROSS' GOOSE: 2 on 9 Mar (TB, BPa) and 1 on 16 Mar (BPr, MPr, SD) at Forney L.; 5 on 27 Mar at Riverton A. (RLC).

CANADA GOOSE: 3,800 at Hendrickson M. on 9 Mar were a large number for that location (PWM); 5 young were there on 25 May (PWM).

WOOD DUCK: 12 small ducklings were at Swan L., Johnson Co., on 13 May (THK).

AMERICAN BLACK DUCK: Reported from 4 locations across the state, the farthest west in Woodbury Co. on 30 Mar (BH).

CINNAMON TEAL: None reported.

EURASIAN WIGEON: 3 males and 2 females were reported 7 miles west of Spirit Lake on 1-2 Apr (*LF). Most inland sightings are of single birds. This species has been increasing on the West Coast, but not on the East Coast, the presumed origin of middle-western birds. This species is thought to migrate down the East Coast in fall with some returning through the central flyway and then northeastward via the Great Lakes and a few northwestward toward Manitoba. This report will be sent to the Records Committee.

AMERICAN WIGEON: 400 was a large number at Little Clear L. on 8 Apr (MMB).

CANVASBACK: 2,000 were at the Keokuk Pool on 5 Mar (RCe).

RING-NECKED DUCK: 3 were still at Cardinal M. on 27 May (FLM).

GREATER SCAUP: Many more than usual were reported with 1-15 birds at at least 10 sites, most with diagnostic details. Early: 8 on 2 Mar at Forney L. (TB, BPa), 2 on 3 Mar at Bays Branch (SD, GBr), 2 on 4 Mar at IPL Ponds (TB), 15 on 6 Mar at Willow Sl. (BLW); late: a pair on 6 May at Hendrickson M. (SD); latest record: 3 on 15 May at Forney L. (TB). Another large group was 10 at Little Clear L. on 7 Apr (*JC, *WEJ).

WHITE-WINGED SCOTER: There was a delayed report of 8 in Washington Co. on 28 Oct 1984 (JPS).

BUFFLEHEAD: First: 1 on 2 Mar at Cone M. (THK).

HOODED MERGANSER: 1-7 were reported from 10 locations during migration. Three broods were seen in Des Moines Co.: 12 on 14 May (RCe) and 9 and 10 on 27 May (Fullers). An adult was in Allamakee Co. on 29 May (SD).

COMMON MERGANSER: Large numbers were seen in western Iowa: 1,000 on 2 Mar at Forney L. (TB) and 400 on 16 Mar in Woodbury Co. (BH).

RED-BREASTED MERGANSER: Female stragglers were seen at 5 sites from 11 to 28 May with the last at Union Slough NWR on 28 May (SD).

RUDDY DUCK: The peak was 500 at Little Clear L. on 4 Apr (MMB).

TURKEY VULTURE: First: 4 on 5 Apr in Dallas Co. (JAH). Singles in Sioux, Osceola, and Dickinson Co. were uncommon (JV, DCH).

OSPREY: First: 1 on 4 Apr in Johnson Co. (TJS); peak: 5 on 27 Apr in Guthrie Co. (SD); last: 1 on 17 May in Buena Vista Co. (DBi).

BALD EAGLE: 40 were in Fremont Co. on 2 Mar (TB). An immature was quite late on 14 May at Coralville Res. (CJB, THK, TJS). Others were seen in many areas across the state. Nest building was observed on Pool 9 opposite Wexford Creek in Allamakee Co. on 30 Mar, but no birds were present on 8 Apr (FL).

- NORTHERN HARRIER:** 1-6 were seen in 10 counties from 3 Mar to 26 May.
- SHARP-SHINNED HAWK:** Singles were reported from 9 counties, 4 in Mar, 2 in Apr, and 3 in May. This low number occurred in spite of our asking regular reporters to record early, peak, and late dates for this species (see COMMENT).
- COOPER'S HAWK:** 6 birds were reported from 5 counties, 2 in Mar and 4 in Apr.
- NORTHERN GOSHAWK:** 1 ad. on 2 Mar at Oak Grove P. (JV, GJB); 1 ad. on 10 Mar at Saylorville Res. (*SD); 1 (no detail) on 14 Mar in Warren Co. (JSi).
- RED-SHOULDERED HAWK:** 1 in Benton Co. on 12 May (FLM); 1 in Louisa Co. on 28 May (PCP); 2 at different sites in Allamakee Co. on 29 May (SD, JJD).
- BROAD-WINGED HAWK:** The only large flocks were seen on 26-27 May with peak of 300 on 27 May in Story Co. (BPr, MPr, RRS). Late May birds were seen at Ames (EM), Allamakee Co. (FLM, SD), and Howard Co. (8 immatures, FLM).
- SWAINSON'S HAWK:** Birds returned to a long-occupied nest site in Osceola Co. Other sighting were in Pottawattamie, Dickinson, Greene, Franklin, and Black Hawk counties.
- RED-TAILED HAWK:** 28 were migrating across western Iowa on 16 Mar (BPr, MPr, SD). A nest was occupied by 16 Mar at Oak Grove P. (JV).
- FERRUGINOUS HAWK:** 1 was reported from Cherokee Co. on 28 Mar (*MMB). Documented reports of this species will be sent to the Records Committee until some consensus is reached on what constitutes an acceptable identification of this species.
- ROUGH-LEGGED HAWK:** Last: 1 on 21 Apr in Marion Co. (SD).
- GOLDEN EAGLE:** 1 ad. was at the usual location in Allamakee Co. on 2 Mar (FLM, RKM). Migrants were documented at Coralville Res. on 10 Mar (*RJH), at Ames on 13 Mar (imm., *SD), and in Lee Co. on 6 Apr (imm., *RCe).
- MERLIN:** 1 at Ames on 1-3 Mar (*PWM, SD, GBr) is a record early date. Others were at Oak Grove P. on 15 Mar (JV), Cedar Co. on 28 Mar (JF), L. Manawa on 4 Apr (TB, BPa), Lyon Co. on 30 Apr (DJH), and Anderson L. on 1 May (SD).
- PEREGRINE FALCON:** 1 on 8 Apr at Saylorville Res. (*SD, JJD); 1 on 21 Apr at Goose L., Clinton Co. (PCP); 1 on 28 Apr in Fremont Co. (*FLM, WRS, RCe); 1 on 5 May at Forney L. (RW); and 1 on 7 May at Coralville Res. (*CAK), also seen on 12 May (JF).
- RAILS:** 1 was reported from O'Brien Co. on 8 Mar (*DBi).
- GRAY PARTRIDGE:** 2 each were seen in Johnson Co. on 12 Apr (JF) and Cedar Co. on 4 May (THK). This species continues to expand southward.
- RUFFED GROUSE:** 2 in Clinton Co. on 1 May (WSB) were south of the normal range of this species.
- WILD TURKEY:** 3 were seen in Sioux Co. on 2 Mar (JV).
- NORTHERN BOBWHITE:** None were seen in Sioux Co. (JV) or Story Co. (PWM). This species is now scarce even in southern Iowa.
- YELLOW RAIL:** 2 birds were at Doolittle Prairie on 28 Apr (*PWM, *JJ, *SD).
- KING RAIL:** 1 was at Doolittle Prairie on 27 Apr (*MPr) and another at Prairie Rail Trail P. in Story Co. on 22 May (*SD).
- VIRGINIA RAIL:** The only migrants reported were 2 in Story Co. on 27-28 Apr (BPr, et al.) and 1 in Marshall Co. on 21 May (RRS fide BPr). Three were at the usual nesting area, Dewey's Pasture, on 16 May (JR) and 2 were in Dickinson Co. on 27 May (SD).
- SORA:** Early: singles on 15 Apr in Hamilton (SD) and Marshall (MPr) counties; peak: 8 on 11 May in Story Co. (SD). Nine were in nesting areas in Clay and Dickinson counties on 16 May (JR).
- COMMON MOORHEN:** 1 at Spirit L. on 7 May (Ted Eischeid fide DCH); 1 at Iowa City on 24 May (*N&BT, JF); 1 at Otter Creek M. on 25 May (JF); 1 in Allamakee Co. on 29 May (SD, JJD).
- AMERICAN COOT:** 1,350 were at L. Manawa on 28 Mar (B.J. Rose fide BPa).
- SANDHILL CRANE:** 1 on 2 Mar at IPL Ponds (*BLW) is the earliest record for this species. Two other singles were also seen in March: Coralville Res. on 21 Mar (JF) and Big M. on 29 Mar (*FLM).
- BLACK-BELLIED PLOVER:** Early: 1 on 21 Apr in Clinton Co. (PCP); peak: 16 on

23 May at Coralville Res. (THK); late: 1 on 28 May in Kossuth Co. (SD). From 1 to 10 were seen at 7 other locations from 11 to 22 May.

LESSER GOLDEN-PLOVER: First: 12 on 29 Mar at Big M. (FLM, RKM); peak: 825 on 7 May in Dickinson Co. (DCH); last: 8 on 27 May in Kossuth Co. (SD). The largest numbers were seen from 25 Apr to 20 May.

PIPING PLOVER: 3 were early at IPL Ponds on 14 Apr (BH, BLW). A peak of 11 birds and 6 nests were observed on 28 May (BLW). A migrant was at Bays Branch on 8 May (RKM).

KILLDEER: 200 was a large number at Riverton A. on 16 Mar (BPr, MPr, SD).

AMERICAN AVOCET: 1 at Rathbun Res. on 30 Apr (RLC); 1 at Willow Sl. on 15 May (BLW).

GREATER YELLOWLEGS: Record earliest: 2 on 16 Mar at Riverton A. (by call, SD, BPr, MPr); peak: 82 on 14 Apr in Guthrie Co. (SD); late: 2 on 18 May at Big Creek L. (SD).

LESSER YELLOWLEGS: First: 1 on 23 Mar in Guthrie Co. (SD); peaks: 365 on 27 Apr in Guthrie Co. (SD), 200 on 7 May in Johnson Co. (THK); late: 8 on 28 May in Kossuth Co. (SD).

SOLITARY SANDPIPER: Early: 1 on 14 Apr in Louisa Co. (THK); peak: 3 on 13 May in Johnson Co. (THK); late: 1 on 22 May in Story Co. (SD).

WILLET: Early: 1 on 14 Apr at Bays Branch (SD, BPr, MPr), 3 on 19 Apr at Coralville Res. (THK, TJS); peak: 40 on 30 Apr at Bays Branch (RKM); last: 6 on 21 May at Willow Sl. (BLW). More than usual were reported with flocks of 11 or more from 7 locations from 26 Apr to 6 May.

SPOTTED SANDPIPER: Early: singles on 20 Apr at Lacey-Keosauqua S.P. (RCe, FLM) and Hendrickson M. (PWM).

UPLAND SANDPIPER: Reported from 11 counties with peak of 8 in Greene Co. on 4 May (BPr, MPr, SD). Adults with a 2 inch chick were seen at Ames on 28 May (HZ).

HUDSONIAN GODWIT: First: 3 on 27 Apr in Guthrie Co. (SD); peak: 25 on 9 May in Cherokee Co. (MMB); last: 1 on 25 May in Plymouth Co. (SD). Groups of 2 to 10 birds were reported from 11 widely scattered locations across the state without the usual concentration in southwest Iowa.

MARBLED GODWIT: Details were provided for 5 at Amana L. on 25 Apr (CJB), 1 at Nashua on 10 May (FLM), and 4 at Forney L. on 16 May (*BLW). Singles were reported from Bays Branch on 27 Apr (SD) and Barringer Sl. on 16 May (JR).

RUDDY TURNSTONE: Early: 2 on 12 May at IPL Ponds (BPa, LPa); peak and last: 9 on 28 May at Union Slough NWR (SD, JJD). Others were 1-4 at 6 locations from 14 to 24 May.

SANDLING: First: 2 on 6 May at Hendrickson M. (SD); peak: 14 on 11 May at Bays Branch (SD, GBr, EM); last: 1 on 24 May at Saylorville Res. (SD).

SEMPALMATED SANDPIPER: No details were given for early birds (The record early date is 11 Apr.) at Riverton A. on 16 Mar (SD) and 30 Mar (FLM, RCe). The next date reported was 20 Apr at Hendrickson M. (PWM). Peak number was 425 at Hendrickson M. on 27 May (HZ).

WESTERN SANDPIPER: Details were given for 1 at Bays Branch on 8 May (RKM) and 3 at Nashua on 10 May (FLM).

LEAST SANDPIPER: Yellow legs were noted on 1 at Riverton A. on 16 Mar (SD), a record early date. Other early sightings were 2 at Hendrickson M. on 28 Mar (SD), 3 at Riverton A. on 30 Mar (FLM, RCe), and 2 at Bays Branch on 30 Mar (SD). One was late at Hendrickson M. on 29 May (PWM).

WHITE-RUMPED SANDPIPER: Early: 1 on 30 Apr in Appanoose Co. (RLC); peaks and last: 100 on 18 May in Pottawattamie Co. (TB), 140 on 28 May in Kossuth Co. (SD).

BAIRD'S SANDPIPER: Early: 20 on 30 Mar at IPL Ponds (*BH), 1 on 30 Mar in Guthrie Co. (SD); peak: 50 on 21 Apr in Fremont Co. (TB); last: 1 on 25 May at Hendrickson M. (PWM). There were reports from 3 other locations from Marshall Co. west.

PECTORAL SANDPIPER: Early: 1 on 10 Mar at Bays Branch (EuA, EIA, DT), 1 on 13 Mar at Big Creek L. (SD), 14 on 16 Mar at Riverton A. (SD); peaks: 1,300 on 19 Apr at Coralville Res. (THK), 2,500 on 7 May at Coralville Res. (TJS).

DUNLIN: Early: 2 on 13 Apr at Otter Creek M. (BPr, MPr); peaks and last: 100 on 21 May at Otter Creek M. (JF), 150 on 28 May in Kossuth Co. (SD).

CURLEW SANDPIPER: One in alternate plumage was photographed at Nashua on 10 May (*FLM) for the first report of this Eurasian species in Iowa. An extensive search the next day failed to relocate the bird.

STILT SANDPIPER: 1-11 were seen at 9 locations from 5 to 28 May.

BUFF-BREASTED SANDPIPER: 40 in Osceola Co. on 24 Apr (DCH) were a record early date and the first for Doug Harr in northwest Iowa. No others were reported.

SHORT-BILLED DOWITCHER: There were many dowitchers reported with details, usually minimal, given for about half the sightings. On 27 Apr 4 short-bills were identified by call when flushed at Bays Branch (SD). A single short-bill was compared with a single long-bill in the same scope field at Cone M. on 5 May (THK, TJS, CJB). Peak numbers were 35 on 11 May at Nashua (THK, FLM), 18 on 11 May in Dickinson Co. (DJH), and 22 on 19 May in Tama Co. (SD). Three were late in Kossuth Co. on 28 May (SD).

LONG-BILLED DOWITCHER: Early: 1 in basic plumage identified by call on 30 Mar at Bays Branch (SD); another on the same day not identified as to species was in Woodbury Co. (BH). Others without detail, but presumably long-bills by date, were 5 on 14 Apr in Guthrie Co. (SD) and 7 on 24 Apr in Story Co. (PWM). Others identified by the solid dark cinnamon belly were 19 on 5 May at Hendrickson M. (HZ), 8 on 8 May in Wayne Co. (RLC), and 10 on 16 May at Willow Sl. (BLW). Counts of 42 and 50 were reported from Mills and Pottawattamie counties on 6 May (TB).

COMMON SNIPE: Peak: 72 on 13 Apr at Iowa City (TJS).

AMERICAN WOODCOCK: First: 3 on 10 Mar at Shimek F. (RCe). One flew into a window in Sioux Co. on 6 Apr (JV). Three females with a total of 8 young were flushed at L. Manawa on 26 Apr (Don DeLong fide BLW).

WILSON'S PHALAROPE: Small numbers were widely reported with a peak of 14 in Dickinson Co. on 26 May (SD).

RED-NECKED PHALAROPE: 1 on 16 May at Big Creek L. (SD); 1 on 27 May in Clay Co. (SD, JJD); 1 late on 31 May in Cherokee Co. (DBi).

FRANKLIN'S GULL: Early: 1 on 2 Mar in Pottawattamie Co. (TB). Only a few reporters saw migrating birds. Two lingered in Pottawattamie Co. to 30 May (BLW); 230 in Dickinson Co. on 27 May (SD) are less unusual.

BONAPARTE'S GULL: Early: 3 on 28 Mar at L. Manawa (B.J. Rose fide BPa), 1 on 29 Mar at Coralville Res. (TJS); peak: 50 on 21 Apr in Clinton Co. (PCP); late: 1 on 16 May in Pottawattamie Co. (BLW), 1 on 25 May in Appanoose Co. (RLC). Small numbers were widely reported throughout April.

RING-BILLED GULL: No one reported large numbers as in the past few years. They may have moved north more rapidly with the warm spring.

HERRING GULL: No concentrations were noted. Two lingered at Keokuk on 20 May (JR) and 1 at IPL Ponds on 24 May (*BLW).

LESSER BLACK-BACKED GULL: A bird seen briefly, but well, at IPL Ponds, Pottawattamie Co. on 17 May (*RW) will be the second record of this species for Iowa if accepted by the Records Committee. Could this be the same bird that passed south through Iowa last fall?

CASPIAN TERN: Early: 1 on 26 Apr in Johnson Co. (JF), 1 on 26 Apr in Mills Co. (BLW), 1 on 29 Apr in Woodbury Co. (BH); peak: 79 on 16 May in Appanoose Co. (RLC). Many other sightings were scattered through May.

COMMON TERN: Early: 1 on 20 Apr at Hendrickson M. (PWM), 6 on 21 Apr at Saylorville Res. (SD); others: 2 on 16 May at Big Creek L. (SD), 5 on 16 May in Appanoose Co. (RLC), 3 on 16 May at Dewey's Pasture (JR), and 1 on 28 May at IPL Ponds (BLW). All reporters described dark primaries.

FORSTER'S TERN: First: 2 on 14 Apr in Guthrie Co. (SD); peak: 62 on 21 Apr in

Polk Co. (SD).

LEAST TERN: Early: 1 on 16 May at IPL Ponds (BLW); peak: 8 on 30 May at IPL Ponds (getting ready to nest according to BLW). Two other locations for this rare species were Willow Sl. on 24 May (BLW) and New L., Woodbury Co., on 25 May (BH).

BLACK TERN: First: 1 on 6 May in Story Co. (SD); peaks: 60 on 15 May in Pottawattamie Co. (TB), 145 on 16 May in Polk Co. (SD), 200 on 16 May in Clay and Osceola counties (JR).

BLACK-BILLED CUCKOO: Singles were reported from only 6 locations from 9 to 19 May in spite of a request for information on cuckoos. It is difficult to believe that there were not many more present.

YELLOW-BILLED CUCKOO: Early: 4 on 8 May in Lee Co. (RCe). Birds were reported from only 5 other locations.

COMMON BARN-OWL: 1 was reported in Osceola Co. on 1 Apr (Dave Kuehl fide DCH).

EASTERN SCREECH-OWL: An adult and young bird were photographed in Cass Co. on 24 May (SS).

GREAT HORNED OWL: 1 "subarctic" bird was seen in Cherokee Co. on 2 Mar (DBi).

LONG-EARED OWL: 2 were at Big Creek L. on 13 Mar (SD) and 1 was late at Cone M. on 9 Apr (GDW).

SHORT-EARED OWL: Singles were noted from Polk, Story, Guthrie, and Marshall counties to 9 Apr; 1 was late at Oak Grove P. on 28 Apr (GBr, Dan Rankeing fide JV).

NORTHERN SAW-WHET OWL: 1 was at Big Creek L. until 13 Mar (SD); another was in Marshall Co. on 24 Mar (BPr, et al.).

COMMON Nighthawk: Early: 3 on 28 Apr in Lee Co. (RCe), 1 on 1 May in Story Co. (SD); peak: 125 on 20 May at Muscatine (GDW).

CHUCK-WILL'S-WIDOW: None reported.

WHIP-POOR-WILL: 1 was noted in Sioux Co. on 29 Apr (JV).

RUBY-THROATED HUMMINGBIRD: 1 was on a nest at Ledges S.P. on 17 May (JR).

RED-HEADED WOODPECKER: Birds began to return at Ames on 23 Apr (PWM) and Sioux City on 2 May (BH).

PILEATED WOODPECKER: 1 at Nine Eagles S.P., Decatur Co., on 3 May was unusual (*JRL).

OLIVE-SIDED FLYCATCHER: All reports were within 11 days. First: 1 on 10 May in Mills Co. (BLW); peak: 3 on 19 May in Marshall Co. (BPr, et al.); and last: 1 on 21 May in Johnson Co. (JPS).

EASTERN WOOD-PEWEE: Arrived very early in SE Iowa. Earliest records: 3 on 4 May at Lacey-Keosauqua S.P. (JPS) and 1 on 5 May at Shimek F., Lee Co. (RCe); yet another on 7 May at Ames (PWM) only tied the previous earliest.

YELLOW-BELLIED FLYCATCHER: 1 or 2 reported at five E and C Iowa locations from 12 May at Ames (PWM) to 30 May in Marshall Co. (BPr, MPr). At least 1 was present on every visit to Hickory Hill P., Iowa City from 14 through 20 May (TJS, et al.).

ACADIAN FLYCATCHER: Three early reports all broke the previous earliest record (8 May) with 5 (!) on 27 Apr at Lacey-Keosauqua S.P. (JPS), 3 on 3 May at Shimek F., Lee Co. (*RCe) and 1 at Amana Woods on 3 May (CJB). This species is uncommon away from SE Iowa, so a nest with 2 birds in Cass Co. on 1 Jun (BLW) was quite unusual. A bird was out of range in Dickinson Co. on 12 May (DCH).

ALDER FLYCATCHER: As expected, reported in late May from C and E Iowa with the first on 19 May in Marshall Co. (JF, DK) and a peak of 4 on 27 May in Marshall Co. (BPr, MPr). Additional 27 May reports were of singles in Mills Co. (BLW), and Boone Co. (RKM).

WILLOW FLYCATCHER: Peaks: 8 on 19 May in Tama Co. and 12 on 28 May in Kossuth Co. (SD).

LEAST FLYCATCHER: Peak: 13 were counted on 17 May in Story Co. (JR).

EMPIDONAX SPECIES: First migrants appeared at Sioux City on 22 Apr (JV), an early date for any empidonax.

EASTERN PHOEBE: Early: 2 on 20 Mar in Mills Co. (BLW); peaks: 9 on 6 Apr in Van Buren (JPS) and 6 on 14 Apr in Lee (RCe) counties.

SAY'S PHOEBE: None reported.

GREAT CRESTED FLYCATCHER: First: 1 on 28 Apr in Ames (PWM).

WESTERN KINGBIRD: Two reports from Story Co. of singles on 11 May (EM) and on 19 May (*PWM).

PURPLE MARTIN: First: 2 on 2 Apr in Ames (SD); peak: 55 on 15 May in Lee Co. (RCe).

NORTHERN ROUGH-WINGED SWALLOW: Early: 1 on 6 Apr at Big Creek S.P. (SD) and 1 on 11 Apr in Plymouth Co. (BH).

CLIFF SWALLOW: Early: 1 on 18 Apr in Iowa City (TJS); 10 were there by 25 Apr (RJH).

BARN SWALLOW: Earliest record: 1 on 16 Mar at Big M. (FLM).

RED-BREASTED NUTHATCH: Late: several on 21 May in Sioux Co. (JV) are the third latest on record.

CAROLINA WREN: 1 was in Iowa City on 4 Apr (THK) and another was regularly found in Hickory Hill Park, Iowa City, from 7 Apr through 22 May (TJS, JF, CT); 1 was in Des Moines on 19 May (EIA, EuA).

BEWICK'S WREN: None reported.

HOUSE WREN: Early: 1 on 15 Apr in Ames (JAH), and 2 on 16 Apr in Keokuk (RCe).

WINTER WREN: Reported between 9 Mar and 9 Apr from seven E and C Iowa locations including a peak of 4 on 9 Apr in Lee Co (RCe); 1 was later and west in Sioux Co. on 20 Apr (JV).

SEDGE WREN: Early: 1 on 26 Apr in Story Co. (SD); by 28 Apr 15 to 20 were present in Story Co. (SD, PWM); 1 more in Jones Co. on 4 May (THK) was still early; peak: 14 at Ventura M. by 12 May (DCH) and 12 at Hendrickson M. by 17 May (JR).

MARSH WREN: Early: 1 on 23 Apr in Hamilton Co. (SD); peaks: 25 on 28 Apr in Story Co. (SD), and 16 on 16 May in Clay Co. (JR).

GOLDEN-CROWNED KINGLET: This species showed a definite peak in early Apr but all were gone by mid-month--8 on 3 Apr in Lee Co. (RCe), 78 on 4 Apr in Story Co. (SD), 12 in Louisa Co. on 6 Apr (RJH), and 9 on 8 Apr in Story Co. (PWM); last: 1 on 15 Apr in Scott Co. (PCP).

RUBY-CROWNED KINGLET: Early: 1 on 26 Mar in Ames (PWM).

BLUE-GRAY GNATCATCHER: Early: 1 on 10 Apr at Shimek F., Lee Co. (RCe), and 15 on 13 Apr at Lacey-Keosauqua S.P. (JPS); by 21 Apr a pair was building a nest at Waubonsie S.P. (TB).

EASTERN BLUEBIRD: 6 nests were found during May in Mills Co. (BLW)

VEERY: Appeared as expected during second half of May throughout state; peaks: 5 on 13 May at Ledges S.P. (SD) and 6 on 21 May in Sioux Co. (JV).

GRAY-CHEEKED THRUSH: Early: 1 on 26 Apr in Cherokee Co. (MMB) and 1 on 27 Apr in Sioux Co. (JV); appeared later in small numbers at scattered C and E Iowa locations.

SWAINSON'S THRUSH: First: 1 on 27 Apr in Sioux City (BH); peak: 7 on 13 May in Ames (PWM); last: 1 on 30 May in Story Co. (PWM). From late Apr to third week of May in Sioux Co. this species outnumbered Gray-cheeked Thrush by 6 to 1 (JV).

HERMIT THRUSH: Most passed through E and C Iowa during early Apr; first: 2 on 4 Apr in Story Co. (SD); peaks: 13 on 7 Apr (PWM) and 9 on 9 Apr (SD) in Story Co.; singles appeared in W Iowa on 7 Apr in Cherokee (MMB) and 24-28 Apr in Sioux (JV) counties.

WOOD THRUSH: 1 was at Sioux City on 30 Apr (BH).

AMERICAN ROBIN: 159 were counted in Decatur Co. on 31 Mar (RCe).

GRAY CATBIRD: Early: 1 in Hickory Hill P. (THK) and 2 at Shimek F. (RCe) on

22 Apr are the second earliest.

NORTHERN MOCKINGBIRD: Reported from Cherokee, Hardin, Tama (*NK), Johnson, and Van Buren counties.

BROWN THRASHER: Early: 1 on 6 Apr in Lee Co. (RCe) ties the second earliest.

WATER PIPIT: Peaks: 25 on 30 Mar at Riverton A. (FLM, RCe) and 40 on 14 Apr in Johnson Co. (GDW). The only other bird reported was from Polk Co. on 21 Apr (SD).

BOHEMIAN WAXWING: Some of last winter's birds lingered into March with 2 on 2 Mar in Cherokee Co. (DBi) and 4 on 9 Mar in Story Co. (PWM).

CEDAR WAXWING: 200 on 3 May in Lyon Co. was the "largest concentration seen here" (DCH).

NORTHERN SHRIKE: Singles were at Cone M. on 9-10 Mar (JPS, *THK, CJB); Hendrickson M. on 20 Mar (SD, GBro); and Big Creek L. on 6 Apr (*SD).

LOGGERHEAD SHRIKE: A nest was found on 3 May in Decatur Co. (JRL fide JDG); birds were found at four sites in Mills Co. during May (BLW). Birds were seen in 6 other counties.

WHITE-EYED VIREO: 1 appeared on 20 Apr at Lacey-Keosauqua S.P. (FLM, RCe), 3 were there on 5 May (JPS); 1 was at Hickory Hill P. on 1 May and another in an Iowa City back yard the next day (TJS); single birds were at Pine L. on 8 May (BPr, MPr, RRS) and in Dallas Co. on 12 May (EIA, EuA); and 3 were counted on 15 May at Shimek F., Lee Co. (RCe).

BELL'S VIREO: First: 1 on 7 May at Hickory Hill P., Iowa City (TJS); another was recorded on 18 May at Marshalltown (JR). Other reports were from 4 southeast counties (Lee, Van Buren, Louisa, Johnson), 2 central counties (Polk, Marshall), and 1 southwest county (Fremont).

SOLITARY VIREO: Most of the vireos arrived early this year. Earliest record: 1 on 21 Apr in Fremont Co. (TB); another on 24 Apr at Ames (PWM) tied the previous early date; there were few reports of more than single (solitary?) birds.

YELLOW-THROATED VIREO: Early: 1 on 28 Apr at L. Ahquabi, Warren Co. (JSi) ties the 3rd earliest.

WARBLING VIREO: Early: 1 at Iowa City (RJH), 1 at Riverton A. (RCe, FLM, WRS), and 4 at L. Ahquabi (JSi) all appeared on 28 Apr to equal the third earliest record.

PHILADELPHIA VIREO: This vireo showed up on schedule at eight scattered locations. The first was 1 on 7 May in Iowa Co. (THK); the peak and last were 5 on 21 May in Sioux Co. (JV).

RED-EYED VIREO: Early: 3 on 29 Apr at Shimek F., Lee Co (RCe) were, no doubt, unaware they had tied the 3rd earliest date on record.

BLUE-WINGED WARBLER: Earliest record: 4 on 22 Apr at Shimek F., Lee Co. (RCe); two 27 Apr reports tie the 3rd earliest: 1 at Nine Eagles S.P. (JRL fide JDG) and 3 at Lacey-Keosauqua S.P. (JPS). This species was reported from 11 other counties including 2 in the northwest (Cherokee, Palo Alto).

GOLDEN-WINGED WARBLER: The three following records of single birds each match the three earliest dates: 30 Apr in Cherokee Co. (MMB), 1 May (TJS), and 3 May (JF) in Johnson Co; peak: 4 in Van Buren Co. on 12 May (RCe); last: 1 on 22 May in Dickinson Co. (DCH), was noteworthy for NW Iowa.

TENNESSEE WARBLER: Early: 2 on 27 Apr at Lacey-Keosauqua S.P. (JPS) tied the 3rd earliest record. 1 was also early on 28 Apr at Sioux City (BH); 140 counted on 8 May at Ames (PWM) was a remarkable peak.

ORANGE-CROWNED WARBLER: Early: 1 on 18 Apr at Ames (EM, PWM) for a 2nd early record; also on the early side were 2 on 21 Apr in Johnson Co. (THK) and 8 on 22 Apr at Ames (HZ); last: "6 birds within 100 yards" on 3 May in Sioux Co. (JV).

NASHVILLE WARBLER: Early: 1 on 22 Apr (SD, EM) and 23 Apr (PWM) in Ames; peak: 60 on 6 May at Ames (PWM).

NORTHERN PARULA: Early: 2 at Shimek F., Lee Co. (RCe), and 13 (!) at Lacey-Keosauqua (JPS)--all on 13 April; 1 on 27 Apr at Waubonsie S.P. (FLM, RCe, WRS) was away from S and E Iowa.

CHESTNUT-SIDED WARBLER: The first was 1 bird on 5 May at George Wyth S.P. (FLM).

CAPE MAY WARBLER: Only three reports this spring and all very early. Single birds on 1 May at Davenport (PCP) and at Hickory Hill P., Iowa City (TJS) tie the earliest date; 1 on 5 May at George Wyth S.P. (FLM) is the 3rd earliest.

BLACK-THROATED BLUE WARBLER: None reported.

YELLOW-RUMPED WARBLER: Peaks: 500 on 24 Apr in Cherokee Co. (MMB), and 148 on 27 Apr at Ames (PWM).

BLACK-THROATED GREEN WARBLER: The first was 27 Apr at Ames (PWM).

YELLOW-THROATED WARBLER: Early: 7 on 13 Apr at Lacey-Keosauqua S.P. (JPS) and 1 on 14 Apr at L. Ahquabi (JSi) for 2nd and 3rd earliest dates. Other reports from along the Des Moines River were from Polk Co. and Ledges S.P.; 1 on 5 May was at Wildcat Den S.P. (PCP).

PINE WARBLER: The only report was 1 on 29 Apr in Scott Co. (*WAB).

PRAIRIE WARBLER: None reported.

BAY-BREASTED WARBLER: Uncommon in NW Iowa, 1 was in Sioux Co. on 20 May (JV); late: 3 on 27 May at George Wyth S.P. (FLM) tied the 3rd latest.

BLACKPOLL WARBLER: Earliest record: 1 on 27 Apr at Lacey-Keosauqua S.P. (JPS).

CERULEAN WARBLER: Earliest record: 1 on 22 Apr at Shimek F., Lee Co. (RCe); peaks: 3 on 2 May at Lacey-Keosauqua S.P. (JPS); and 4 on 15 May at Ledges S.P. (BPr, MPr, RRS). Other C Iowa records were 1 on 18 May at Grammer Grove P., Marshall Co. (BPr); and another on 12 May at Pine L. (BPr, MPr). The only other report was from Allamakee Co.

PROTHONOTARY WARBLER: Early: 1 on 27 Apr at Lacey-Keosauqua S.P. (JPS) is the 2nd earliest date; 6 were noted on 12 May in Benton Co. (FLM). Birds were seen in 5 other eastern counties.

WORM-EATING WARBLER: This species made a strong movement with records from ten locations. Besides expected spots (Amana Woods, Lacey-Keosauqua S.P., and White Pine Hollow) there were the following reports: 1 on 2 May in Scott Co. (Don Moeller fide PCP); 1 singing for 15 minutes in an Iowa City back yard on 4 May (CJB); another on 4 May at Ames (PWM); 1 on 8 May at Hickory Hill P., Iowa City (JF); 1 on 17 May (JR) and 24 May (SD) at Ledges S.P.; 1 on 19 May at Pine L. (BLW, JR, CJB); and 2 on 20 May in Appanoose Co. (RC).

OVENBIRD: Early: 1 on 20 Apr was at Lacey-Keosauqua S.P. (FLM, RCe) and 3 birds were present the next day (JPS).

NORTHERN WATERTHRUSH: Early waterthrushes in April are usually Louisianas, but a pattern of early arrival was clear for this species. Early: 1 on 18 Apr at Lacey-Keosauqua S.P. (JPS) was a 3rd earliest date; also early were 1 on 20 Apr at Ames (PWM) and 1 on 25 Apr at Iowa City (TJS). It is important to carefully note details of April waterthrushes.

LOUISIANA WATERTHRUSH: The Mississippi Flyway Express delivered yet another record (3rd earliest) to Lacey-Keosauqua S.P. with 2 birds on 6 Apr (JPS); on 4 May a nest was observed under construction (CT). Other birds showed up again at Amana Woods and Ledges S.P.; 1 was at the Coralville Res. on 23 Apr (TJS), and 2 were at L. Ahquabi on 28 Apr (JSi).

KENTUCKY WARBLER: 3 on 24 Apr at Shimek F., Lee Co. (RCe), and 1 on 27 Apr at Lacey-Keosauqua S.P. (JPS) are earliest records.

CONNECTICUT WARBLER: The eight reports of single birds in twelve days, all from E and C Iowa, illustrate the late and narrow migration interval of this species. The first was on 15 May at Hickory Hill P., Iowa City (TJS); and the last was on 27 May at Ames (PWM).

MOURNING WARBLER: 1-3 birds found in 11 counties ranging from 13 May in Sioux (JV) to 30 May in Story (PWM) with a peak of 7 on 25 May in George Wyth S.P. (FLM).

COMMON YELLOWTHROAT: Early: 2 on 22 Apr at Shimek F., Lee Co. (RCe) is a 2nd earliest date.

HOODED WARBLER: Returned on 3 May for the fifth consecutive year to the

- Amana Woods (CJB); 3 singing males were found on 14 May (CJB, THK, TJS).
- WILSON'S WARBLER:** After first arriving on 13th, up to six a day were seen during the latter half of May in Sioux Co. (JV); the last was 27 May at Iowa City (RJH).
- CANADA WARBLER:** Early: 1 on 9 May in Marshall Co. (BPr, RRS) is the 3rd earliest; also seen from 15 May to 28 May in eight other counties including single birds in NW Iowa: 21 May in Sioux (JV), and 22 May in Dickinson (DCH).
- YELLOW-BREASTED CHAT:** Early: 3 on 8 May at Shimek F., Lee Co. (RCe) tied the third earliest.
- SUMMER TANAGER:** Early: On 28 Apr singles were at Waubonsie S.P. (FLM, RCe, WRS) and in Appanoose Co. (RC) for a 3rd earliest date. Two other locations were in Lee and Van Buren counties.
- SCARLET TANAGER:** Early: 1 on 27 Apr at Waubonsie S.P. (FLM) is a 2nd earliest record date.
- ROSE-BREASTED GROSBEAK:** Early: A single bird on 24 Apr at Fort Madison (RCe) ties the 2nd earliest.
- BLACK-HEADED GROSBEAK:** A migrating male bird was studied at the Coralville Res. on 13 May (*THK).
- BLUE GROSBEAK:** Early: A male on 9 May at Hickory Hill P., Iowa City (*CAK) was a 3rd earliest date and was far east of its usual W Iowa range.
- INDIGO BUNTING:** Earliest record: 1 on 27 Apr at Riverton A. (FLM); early: 1 on 29 Apr at Shimek F., Lee Co. (RCe) is the third earliest date.
- DICKCISSEL:** 1 at a feeder on 16 Apr in Iowa City (Donna Sandrock fide JPS) is the 2nd earliest spring record; could this bird have wintered? Other early birds were in Sioux Co. (BH) and Fremont Co. (FLM, RCe, WRS) on 28 Apr.
- AMERICAN TREE SPARROW:** Last: 1 on 14 Apr in Sioux Co. (JV).
- CHIPPING SPARROW:** Peak: 100 on 13 May in at Sioux City (BH).
- CLAY-COLORED SPARROW:** Early: 1 on 19 Apr in Sioux Co. (JV); last: 1 on 16 May at Barringer Sl. (JR).
- VESPER SPARROW:** Earliest record: 1 on 7 Mar in Story Co. (*PWM); early: 1 on 24 Mar at Coralville Res. (THK). Also early were 4 on 30 Mar at Willow Sl. (FLM, RCe).
- LARK SPARROW:** The first was 1 on 4 May in Story Co. (BPr, MPr); 4 were in Lee Co. on 20 May (JR). Birds were seen in 9 other scattered counties.
- LARK BUNTING:** A male was described in Lyon Co. on 16 May (Nina Harr fide DCH).
- SAVANNAH SPARROW:** Early: 1 on 16 Mar in Mills Co., and 1 on 17 Mar in Polk Co. (EuA, EIA, DT); also a bit early was 1 on 21 Mar in Sioux Co. (JV); peak: 10 on 14 Apr in Johnson Co. (THK).
- GRASSHOPPER SPARROW:** 1 was early on 21 Apr in Sioux Co. (JV).
- HENSLOW'S SPARROW:** None reported.
- LE CONTE'S SPARROW:** 1-3 were in Story Co. from 20 Apr to 11 May (SD, PWM, BPr, MPr). Singles were in Johnson Co. on 1 May (TJS) and at Sweet M. on 13 May (FLM, RKM, RCe).
- SHARP-TAILED SPARROW:** 1 was in Wayne Co. on 8 May (RC); 2 were in Story Co on 18-19 May (*PWM, *SD).
- FOX SPARROW:** Peak: 13 on 4 Apr at L. Manawa (TB).
- LINCOLN'S SPARROW:** First: several on 15 Apr in Sioux Co. (JV); 6 were seen on 20 Apr in Johnson Co. (RJH).
- WHITE-THROATED SPARROW:** Last: 1 on 19 May at Pine L. (JR).
- WHITE-CROWNED SPARROW:** Outnumbered the usually more common White-throated Sparrow in Sioux Co. during second week of May (JV); last: 1 on 16 May in Mills Co. (BLW).
- HARRIS' SPARROW:** Last: 1 on 16 May in Cherokee Co. (MMB). This species is common in W Iowa as evidenced by the flocks of 10-20 reported moving through Sioux Co. during Apr and May (JV).
- LAPLAND LONGSPUR:** Seen in good numbers during Mar with peaks of 3,000 in

FIELD REPORTS

NW Iowa on 8 Mar (JV), and 2,500 in C Iowa on 24 Mar (BPr, MPr). Last: 1 bird on 14 Apr in Johnson Co. (THK).

SMITH'S LONGSPUR: Only four reports: 120 on 23 Mar in Polk Co. (EM); 2 on 30 Mar in Story Co. (*PWM); 2 on 13 Apr in Johnson Co. in same field as last several years (TJS, THK); and a late group of 120 on 23 Apr at Saylorville Res. (*SD).

CHESTNUT-COLLARED LONGSPUR: 2 males were seen on 20 Mar near Hendrickson M., Story Co. (*SD, *PWM). This species apparently occurs in very small numbers in with the migrating flocks of Lapland Longspurs.

YELLOW-HEADED BLACKBIRD: Earliest record: 1 on 7 Apr at Sweet M. (FLM); Sioux Co. migrants first appeared on 21 Apr (JV); 1 on 8 May at Cooper M. was only one seen in Story Co. by Martsching.

RUSTY BLACKBIRD: Several flocks of 100 appeared by 16 Mar in Sioux Co. and some birds were still present on 31 Mar (JV); last: on 14 Apr with 2 in Johnson (THK) and 1 in Story (EM) counties.

BREWER'S BLACKBIRD: Details were given for 3 on 20 Mar at Otter Creek M. and 6 on 5 Apr at Anderson L. (SD).

ORCHARD ORIOLE: Described as "very common" in Fremont Co. with large numbers seen during the second half of May (TB). Birds were seen in 7 counties away from the western edge of the state.

NORTHERN ORIOLE: Earliest record: 1 on 23 Apr at Shimek F., Lee Co. (RCe). A female came to a feeder in Cass Co. from 26 Nov 1984 to 2 Feb 1985 and on 29 May 1984 a photo was taken at the same feeder of an apparent adult male Baltimore X Bullock's hybrid (SS).

HOUSE FINCH: A female conveniently made a one day appearance on 28 Mar at Jim Fuller's feeder in Iowa City (*JF, *THK, *TJS); a male with Purple Finches was studied on 12 Apr at Burlington (*JF, ChF).

RED CROSSBILL: Late: 18 to 23 were regular at two Cherokee Co. feeders until last seen on 25 May (DBi); 5 were present on 23 May at Sioux City (BH). Other lingerers included 1 seen by many at the IOU meeting at Marshalltown on 19 May (FLM et al.); 17 were at Ames on 17 Apr and 1 was there on 12 May (EM).

WHITE-WINGED CROSSBILL: Last: 1 on 12 Apr in Des Moines Co. (JF); 2 were still in Story Co. on 4 Apr (SD); and 12 were in Polk Co. on 17 Mar (RC).

COMMON REDPOLL: The only report was of 2 still in Sioux Co. on 17 Mar (JV)

PINE SISKIN: On 31 May many were still in Des Moines (JSi) and 3 were coming to a feeder in Cherokee Co. (DBi). Reports came from six other counties after 15 May including an adult feeding a full size young bird on 18 May in Marshalltown (THK). One was flushed from a nest at Ames on 11 May (EM). Nest building was noted at Hawarden (JV).

CONTRIBUTORS (* = documentation only)

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OTHER OBSERVERS

Eloise Armstrong; Cathryn A. Baldner; Gordon J. Brand; Gordon Brown; Arthur Clark; Mark Dixon; Charles Fuller; Jane Fuller; Phyllis Harris; W. Ross Silcock; and Ramona R. Sommerlot.

COMMENTS

A record amount of data was received in spite of what many thought was a poor season. We entered data for 1,474 sightings into our computers for checking of dates, sorting, and printing--up from 1,084 for the same season last year. Part of the increase was due to report forms that were distributed to 32 regular reporters (1 returned by the post office). The forms, which asked early, peak, and late dates on selected migrants and county locations for several uncommon summer residents, were returned by 15 of 25 of those who got the form and submitted a report. We believe that a fair amount of information was available from these forms that would have otherwise gone unrecorded. There were mixed opinions as to the merits of the forms, and the amount of work recording the data was certainly increased. Some states, such as Minnesota, have very long reporting forms specifically designed for each season. We hope this experiment will provoke more discussion--let us hear your ideas on improving the reporting process.

The quality of the data was generally good. Reporters seem to be aware of unusual species and dates and the need to provide descriptive data in these instances. Unfortunately, we still have accidental and casual species reported without any description from those who saw the bird. We can only encourage those who receive such reports to ask the primary observers to put their observations down on paper. Another frustrating problem for editors of field reports is deciding who saw the bird. We strongly encourage contributors to list all secondhand reports (those birds that they did not see themselves) on a separate (8 1/2 X 11) piece of paper. One other point about quality of data--observers should develop the habit of taking notes during or immediately after viewing a rare bird. Do you carry paper and pen while birding? Of 25 documentations of accidental and casual species this spring, notes were made immediately for 7, within an hour for 3, within a day for 9, from 2 to 11 days for 5, and at an unrecorded time for 1.

For the past few years a summary of the previous year's birds have been presented in this section of the report. The data for 1984 now appears to be complete. The 309 species seen tops the old record of 300 seen in 1981 and is 18 species greater than for 1983. Only two of the 276 regular species were missed (Say's Phoebe, Townsend's Solitaire), and all of the 16 casual species were found. The 19 accidental species included Red-throated Loon, White-faced Ibis, Bean Goose, Eurasian Wigeon, Black Scoter, Barrow's Goldeneye, Greater Prairie-Chicken, Black-necked Stilt, Whimbrel, Red Knot, Ruff, Lesser Black-backed Gull, Black-legged Kittiwake, *Selasphorus* sp., Rock Wren, Mountain Bluebird, Western Tanager, Smith's Longspur, and Great-tailed Grackle. Five of these species represent the first accepted record for the state (Bean Goose, Barrow's Goldeneye, Black-necked Stilt, Lesser Black-backed Gull, *Selasphorus* sp.). It is clear that some of the casual species should be moved to regular status and several of the accidentals also need to be moved up.

Summer field reports (June and July) should be mailed by August 1 to James J. Dinsmore, Dept. of Animal Ecology, Iowa State University, Ames, IA 50011.

General Notes

Curlew Sandpiper at Cedar Lake, Nashua, Chickasaw County — On 10 May 1985 I decided to drive to Nashua in northeast Iowa to look for shorebirds since there was not any suitable habitat around the Waterloo area. Upon arriving at Nashua and going to Cedar Lake on the northeast side of town I noticed quite a few shorebirds some distance out on the mud flats. Cedar Lake is a very shallow pool of water on the Cedar River at Nashua. The dam broke several years ago on what used to be a large lake and was not repaired. All that remains now is a large mud flat that is great for shorebirds in spring and fall.

While scoping the shorebirds from about 250 to 300 yards I noticed that one of the birds was rusty red color. My initial reaction was that I had finally found a Red Knot (*Calidris canutus*) in Iowa. I continued scoping the other shorebirds as I approached the red colored bird to see if I could find anything else interesting. There were 20 different species of shorebirds on that side of the lake. After I got to within about 100 yards of the bird I decided to take a closer look at the red bird. The bird did not look right for *C. canutus*. It was intermediate in size to some of the Pectoral Sandpipers (*Calidris acuminata*) nearby. I then approached to within about 40 to 50 yards and carefully studied the bird using a 33X lens on my telescope. At that point I knew that I was looking at a Curlew Sandpiper (*Calidris ferruginea*). The details seen and photographed are as follows:

The bird was smaller than about $\frac{3}{4}$ of the Pectorals and about the same size or larger than the other $\frac{1}{4}$ of them. The bird was about the same body shape as the Pectorals nearby. The black bill was long and thin looking and was decurved from the base to the tip over its entire length; it appeared to be about $1\frac{1}{2}$ times the length of the head. Behind the base of the bill the face was whitish with the white area extending into the loral area and then forming a white superciliary line above the eye. The bird also had a very thin white eye ring. The breast, throat and belly was a rufous red color with the undertail coverts being white with some raisin barring coming in from both sides. The head, crown and nape was a little lighter reddish color. The feathering on the back was reddish with darker centers to the feathers and a lighter feather edging. This gave the birds back a mottled appearance. The rump was mostly white with some reddish flecking near its edges. The tail and flight feathers were dark gray to black.

The bird was continuously feeding; sometimes with the feeding action of a Stilt Sandpiper (*Calidris himantopus*) with its head under water for quite a while, from 5 to 10 seconds at a time. I did not hear the bird call while I watched it.

After watching it and taking photos of it for two hours I decided to call other birders that might be interested. Some people apparently showed up that afternoon and could not find the bird. I returned the next day with Tom Kent and with others showing up after we got there. We could not relocate the bird after an extensive search of the area. I am very disappointed that no one else got to see this unusual bird and am thankful that I had my camera with me to record Iowa's first record of a Curlew Sandpiper. — Francis L. Moore, 336 Fairfield St., Waterloo, IA 50703.

Great-tailed Grackle Nest in Central Iowa — The status of the Great-tailed Grackle (*Quiscalus mexicanus*) in the Midwest is changing rapidly due to its expansion northward from its historical range. Silcock (1983), Dinsmore et al. (1984) and Faanes and Norling (1981) give detailed descriptions of recent range expansions by the Great-tailed Grackle. Dinsmore et al. (1984) list only one possible Iowa observation of this species through 1982. However, during 1983 Great-tailed Grackles were observed in southwestern Iowa in Mills and Fremont counties (Silcock 1983). Both observations involved paired birds during the breeding season and the female of one pair was observed feeding young on two occasions.

On 17 May 1984 I saw a pair of Great-tailed Grackles at Finn Pond, 2 miles west

of Jefferson in Greene County, Iowa. Finn Pond is an 8.4 ha. prairie marsh owned and managed by the Iowa Conservation Commission. Finn Pond's emergent vegetation is dominated by cattail (*Typha glauca*) and river bulrush (*Scirpus fluviatilis*). The birds' behavior indicated that they were nesting in the marsh, but a search of the area was unsuccessful in finding a nest. I visited the site again on 29 May 1984 and again observed a pair of Great-tailed Grackles behaving as if they were nesting. A second search of the area resulted in the discovery of a nest. The nest contained 3 chicks and one egg. The remaining egg was pale blue, heavily marked with dark curved lines and measured 32.0 x 20.2 mm. the nest was constructed in a stand of cattail 42 cm above the water surface. The nest consisted of cattail and was lined with grass, probably bluegrass (*Poa pratensis*). The nest had a depth of 6.6 cm, an outside diameter of 17.0 cm and an inside diameter of 12.1 cm. The nest was located about 30 cm from open water and the water depth under the nest was 79 cm. Following the examination of the nest, I observed the female return and the male resume carrying food to the nest. On 31 May, 1984, the nest was visited by James Dinsmore (pers. comm.) who observed both adults and found that the nest contained 4 chicks. I revisited the site on 13 and 14 June 1984. No Great-tailed Grackles were observed and the nest was empty. The success of the nest could not be determined, although from its worn appearance, I suspect that the nest was successful.

This is the first description of a Great-tailed Grackle nest in Iowa to appear in the literature and also represents an apparent range expansion of approximately 150 km. into central Iowa. Whether the current expansion is permanent or just a temporary fluctuation will only become evident with more observations. I thank James Dinsmore for his assistance in writing this note.

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Mike Brown, Department of Animal Ecology, Iowa State University, Ames, Iowa.

Capture of a Banded Peregrine Falcon in Northwestern Iowa — The Peregrine Falcon (*Falco peregrinus*) is considered to be extirpated from much of its former breeding Range in Central United States, including Iowa (Hickey 1969, Brown 1971). Some Arctic regions, however, continue to support fairly stable populations (Evans 1982; Fyfe et al. 1976). These populations may supply the occasional, but rare, Peregrine migrants in Iowa which are seen along waterfowl migration corridors during spring and fall (Dinsmore et al. 1984).

During a 1983 fall raptor migration study along the Mississippi River, funded by the Iowa-Conservation Commission, six Peregrines were seen and, more importantly, a previously banded individual was netted at a site in Allamakee County, 5.1 miles north of Marquette near the Luster Heights State Correctional Facility. A live Rock Dove was used as a lure, surrounded by collapsible dho-gazza nets (5' high by 7' wide) and a single bow net. Capture was made by David McIlrath on 19 October 1983, shortly before noon (CDT) on a day with overcast skies, northeast winds and occasional drizzle and rain.

This bird, an immature female, and been banded as a nestling on 26 July of the same year with a Copenhagen Museum band by members of the U.S. Peregrine team working in the Sondr-Stromfjord region of Greenland. Information of the bird's history was obtained from Peregrine Fund officials, including F. Prescott

Ward, a Maryland ornithologist and director of the Peregrine team. He also indicated that two of the nestmates had been captured at separate banding locations along the Atlantic coast (Virginia and North Carolina) that fall.

The capture of a Greenland Peregrine along the Mississippi Flyway is significant because all previous band returns suggested that these falcons use the Atlantic coast as a migrational route (Mattox et al. 1983). We believe this capture, along with other sightings during our study, gives evidence that the Mississippi flyway may indeed be an important migration route for remaining Peregrines from several geographical regions, including Greenland.

Although the number of sightings of this species decreased in Iowa in the 1970s (Dinsmore et al. 1984), Peregrine researchers have noted production increases in some Arctic areas in 1983 and 1984 (Mattox pers. comm.). These natural increases plus fairly successful restocking programs in Minnesota (Redig 1983), may mean an increase in numbers of Peregrines utilizing the Mississippi River flyway.

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Ferruginous Hawk in Central Iowa — On the morning of 22 Sept. 1984, following a day of heavy hawk migration along the Iowa River in Marshall County, my son Mark and I were heading for a ridge paralleling the river, hoping for another day of good hawk migration. But before we got there, when we were a half mile west of Liscomb in northwest Marshall County and a mile from the river, a large hawk came flying across the rolling fields toward us.

At first glance I thought it was a Northern Harrier as it swooped low over the fields with its wings at a slight dihedral. But instead it was a large buteo, appearing larger than a Red-tailed Hawk, with a long wingspread. As it came flying toward our car we saw the almost completely white undersides and white head and I thought "Ferruginous" at once, although there were no rusty leggings. As it tilted on the strong south winds, we saw the dark brown upper parts of its body, shoulders, and wings (with no rufous showing), a white tail with a pinkish tip, and large white patches on the upper wings centered at the base of the inner primaries — not at the wing tips.

We checked our guides, Peterson's *A Field Guide to the Birds*, 1980, and Birds of North America by Robbins, et al, without satisfactory answers. National Geographic's *Birds of North America* showed the white undersides of an immature Ferruginous with no rusty leggings and white upper wing patches exactly where we had seen them.

Consulting Kim Eckert's *A Birder's Guide to Minnesota* we read: "A buteo with dark legs or rufous back has to be a Ferruginous (but they don't all have these

marks). On the other hand, a buteo that looks really large, that has a white head and underparts and has a whitish or pinkish tail doesn't have to be a Ferruginous (may Red-taileds can look as large without direct comparison, and Krider's types can be just as pale). Look for the Ferruginous' white patch on the upper wing surface centered at the base of the inner primaries, and if you see a buteo with a white patch on the outer primaries close to the wingtips, it's an immature Red-tailed, not a Ferruginous."

From the new *Iowa Birds*, Dinsmore, et al, we read: "Immatures may lack rufous coloration." So after much searching we were finally fully convinced that this buteo was an immature Ferruginous Hawk.

Iowa Birds, Dinsmore, et al, lists the status of Ferruginous Hawk as "casual, predominantly migrant." There are only 35 records with dates scattered over the years. In addition, this book has these comments: "Ferruginous Hawks breed in the grasslands of the western plains, including W. Nebraska and W. South Dakota. Most migrate south in winter, but some remain in the north or move eastward. Migrants wander as far east as Iowa and very rarely to Illinois and Indiana. The distribution pattern in Iowa suggests that the species is more common in western Iowa, especially when one considers that the eastern part of the state is birded more intensively. This species is easily overlooked, so it may be more common than the records indicate. However, it is also likely that some of the published records represent misidentified light phase Red-tailed Hawks."

Of especial interest to us was a reddish-orange tag about 3" x 4" on the upper right wing. Dave Newhouse, non-game biologist for the Iowa Conservation Commission, obtained names of those who have been tagging Ferruginous Hawks in adjacent states — one in South Dakota and one in North Dakota.

After contacting them I received a reply from Ronald C. Gaines, a graduate student at North Dakota State University, Fargo, North Dakota. He has been tagging Ferruginous Hawks over the past two years. Green wing tags were used in 1983, red in 1984. So even though we saw no tag number, Gaines said that no doubt this Ferruginous Hawk was tagged by him in Kidder County, North Dakota, in the spring of 1984. — Beth Proescholdt, Liscomb, Iowa 50148

BOOK REVIEWS

The Atlas of Australian Birds — M. Blakers, S. J. J. F. Davies, P. M. Rielly — Royal Australian Ornithologists Union, Melbourne Univ. Press, dist in U.S. by International Scholarly Book Service, Inc., Beaverton, OR — 738 p., 782 maps, 648 b & w illus — 1984 — \$70.00.

As the Iowa Breeding Bird Atlas project begins we have yet another project finalized and in print. This is a vast project covering a country the size of ours with much less (only one-tenth) the population. The work was done from 1977-1981. The coverage was quite complete for a country with its population so heavily concentrated. The maps cover half a page each and the text summarizes specific information reported. The forms and method of application are completely covered. This volume presents a wealth of information about the birds of Australia in a clear format. ed.

A Guide to Bird Behavior, Vol. 2 — Donald W. Stokes, Little, Brown & Co., Boston — 344 p., 91 b & w illus — 1985 — cloth, \$14.95, paperbound \$9.95.

The second in a series (Vol. 1 reviewed in *IBL*, Vol. 53, p. 60) of books aimed at the birder who wants to go beyond identification and understand the actions of birds. This volume covers twenty-five more common species including: Killdeer, Mourning Dove, Downy Woodpecker, Brown Thrasher, Northern Oriole, N. Cardinal, and Chipping Sparrow. For each species an overview of life cycle, behavior calendar, display guide and behavior description section is included. It includes material useful to beginners and advanced students. ed.

The Marsh Hen — Brooke Meanley — Tidewater Publishers, Centreville, MD 123 p., 43 text figs. — 1985 — paperbound, \$8.95.

The subtitle of this book is "A Natural History of the Clapper Rail of the Atlantic Coast Salt Marsh." The coverage is full of detailed observations by the author and includes many references to other sources. Appendixes cover subspecies, sexing and aging, capture and census methods. It is a nice coverage of a rather shy, somewhat elusive bird whose habitat is threatened at present. ed.

A Birdwatcher's Miscellany — Rob Hume, ed. — Blandford Press, Poole, Dorest, UK, dist by Sterling Publ. Co., NY — 192 p., many b & w illus. — 1984 — price not given.

This little book presents narrative field observations from British naturalists of the last two centuries. It is presented to inform as well as entertain and makes interesting occasional reading. ed.

America's Bald Eagle — Hope Ryden — G. P. Putnam's Sons, NY — 64 p., b & w photos — 1985 — \$11.95.

This children's book presents the life history of the Bald Eagle in straightforward text with fine photographs. Ms. Ryden, a graduate of Augustana College, has received the Joseph Wood Krutch Medal for her nature writing. ed.

The Birds of the Wetlands — James Hancock — Facts on File Inc., N.Y. — 152 pp., 116 color photos — 1984 — \$22.95.

This book is not a comprehensive coverage of all wetland inhabiting birds but a collection of pictorial and verbal portraits of nine of the world's outstanding wetlands. Judging by the three I have visited the accounts are rather superficial although nicely illustrated. They present a general overview of the habitat and birds with some of the history of the area. Area checklists are variable with most consisting of species observed by the author at the location. Some hints for visitors and rather incomplete biographies for the area round out the text. This book would be of some use to the world travelling birder. ed.

Tunnicliffe's Birds — Measured Drawings by C.F. Tunnicliffe with commentary by Noel Cusa — Little, Brown & Co., Boston — 160 p., 80 p. of color plates — 1984 — \$49.95.

C.F. Tunnicliffe is one of the best known British bird artists of the middle 20th century. He had a rare devotion to detail and accuracy. These drawings, watercolors of the entire bird and details of wing, tail, head and individual feathers were used as reference by the artist. As such they are an excellent source of data for other artists. They also allow the birder to study the details of plumage. Most of the 80 species represented are birds also found in the U.S. — ed.

The Status and Distribution of New Jersey Birds — Charles F. Leck — Rutgers Univ. Press, New Brunswick, NJ — 244 p., 1 map — 1984 — \$25.00

This update for New Jersey provides brief species accounts for all its species. The author covers season and status with some comment on specific areas within the state and some specific high counts. No credit is given individual observers for their efforts. It seems the species accounts could easily have been a bit more detailed. ed.

The Puffin — M.P. Harris — T. & A.D. Poyser, Dist by Buteo Books, Vermillion, SD — 256 p., 24 b & w ph. — 1984 — \$32.50.

Another fine British monograph, this time on one of the most comical appearing of seabirds, the Common Puffin. This species was the subject of a previous monograph by R.M. Lockley, published in 1953. This book compliments rather than supersedes its predecessor. All aspects of the life history cycle are covered for this bird which has recovered from many threats to be at the highest population level of this century. All students of seabirds will find enjoyable and informative reading in this volume. ed.